

# MANUFACTURERS' RECORD

A WEEKLY SOUTHERN INDUSTRIAL  
RAILROAD AND FINANCIAL NEWSPAPER.

## AS VIEWED IN MANCHESTER.

The reason why the New England cotton trade is depressed is the fact that it has found such a formidable competitor in the rising cotton manufacture of the Southern cotton States. In the home market there is not room for both. The consequence is that the North has lost all the lower and coarser grade part of the business, and is at its wit's end to find outlets for its productions. The usual resort has been had to the dumping process, and China has felt the effects. To that country New England last year sent nearly three times as many shirtings, drills and sheetings as in the previous one, and this made itself felt among our manufacturers in the diminished demand for Lancashire shirtings.—Manchester (England) Textile Mercury.

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VOL. XXXIII  
No. 16.

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Baltimore, May 13, 1898.

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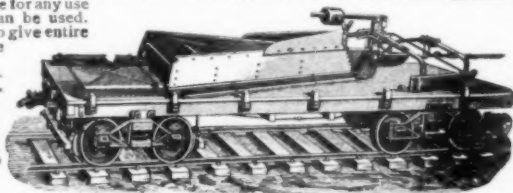
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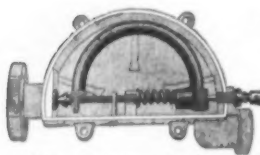
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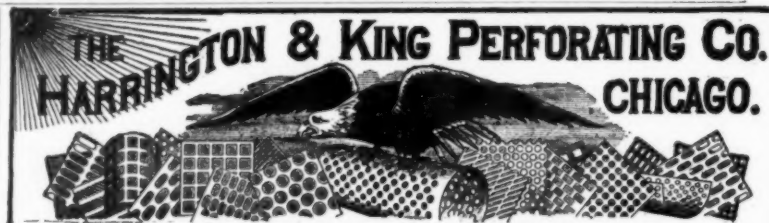
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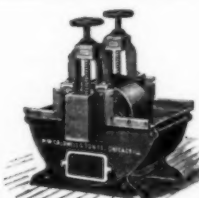


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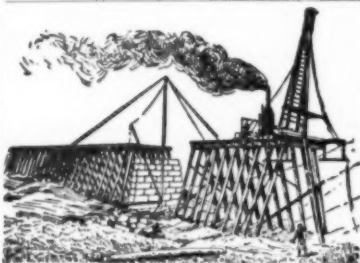
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Williams & Schmid, Granville, N. Y.  
Slatington-Bangor Slate Syndicate, Slatington, Pa.  
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Alabama Bridge & Bol. Co., Birmingham, Ala.  
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Lombard Iron Wks. & Sup. Co., Augusta, Ga.  
Birmingham Boiler Wks., Birmingham, Ala.
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T. H. Brooks & Co., Cleveland, O.  
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Buffalo & Cleveland Transit Co., Cleveland, O.  
Richmond & York River Line, Balto., Md.  
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Bay Line Steamers, Baltimore, Md.  
Baltimore Storage & Light Co., Balto., Md.
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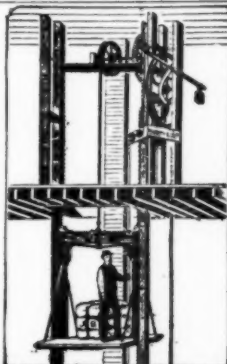
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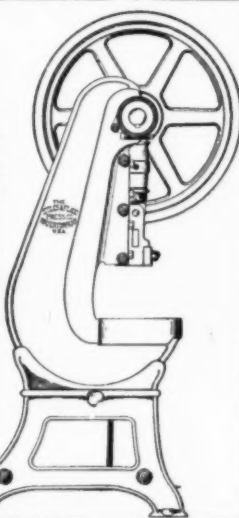


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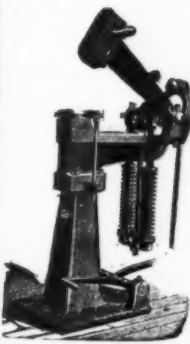
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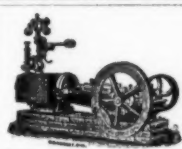
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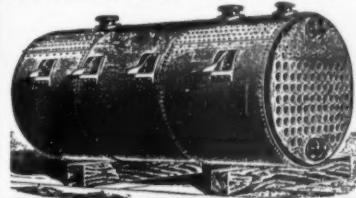
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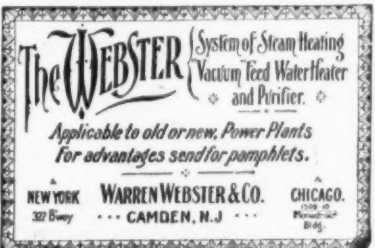


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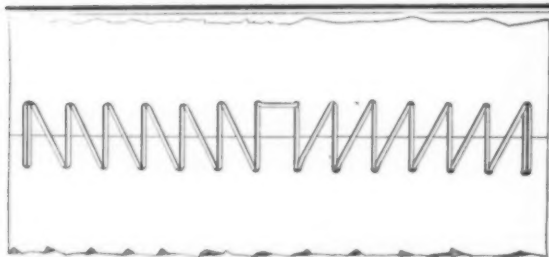


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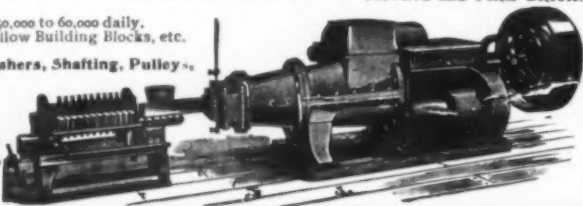
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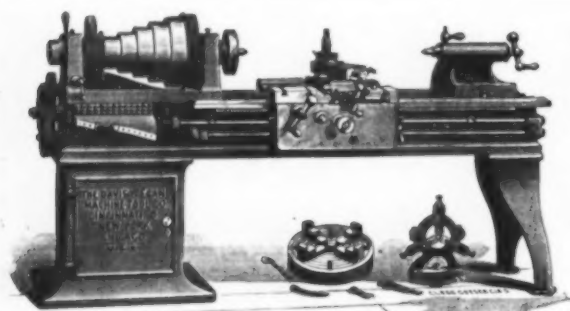
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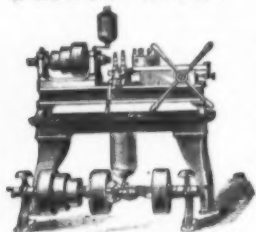
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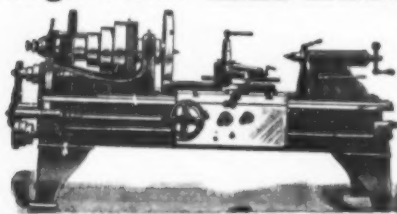
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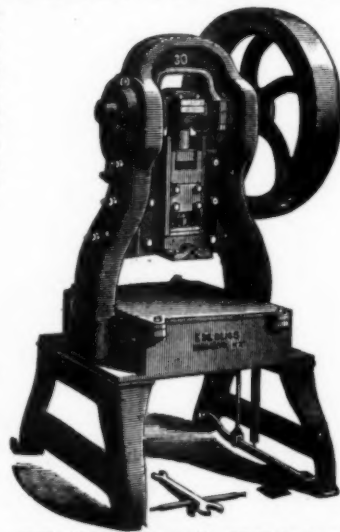
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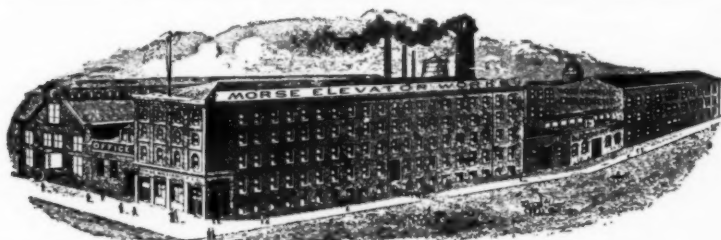
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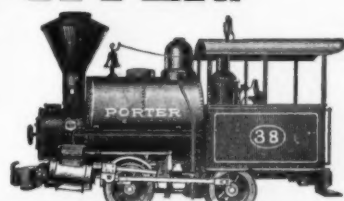
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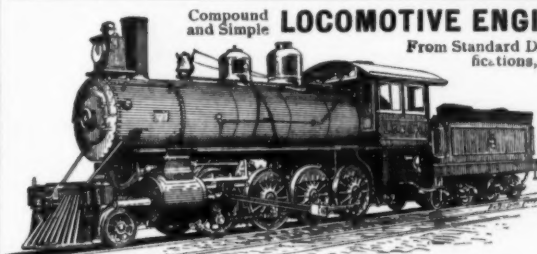


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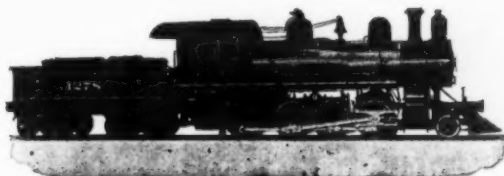
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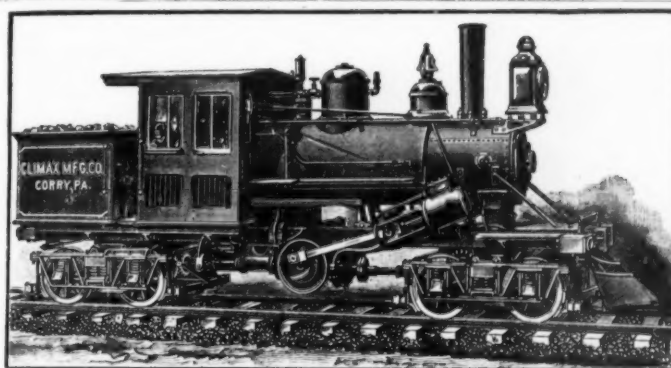
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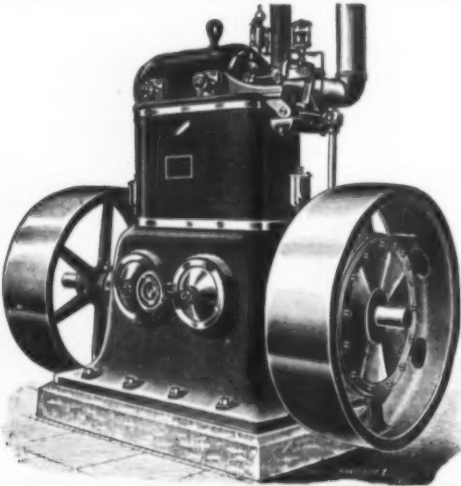
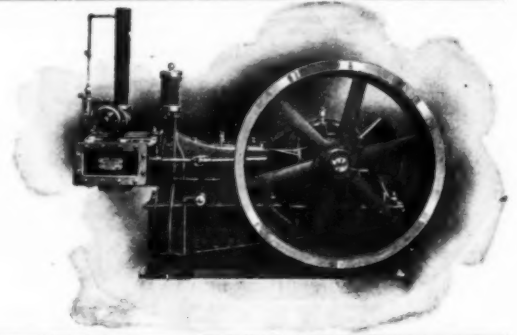
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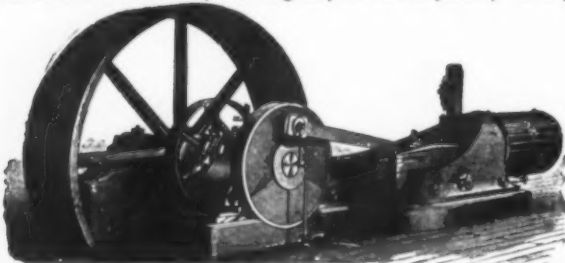
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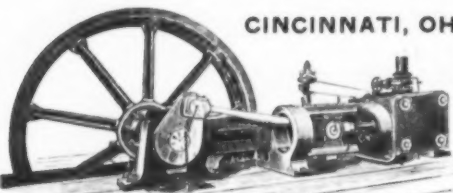
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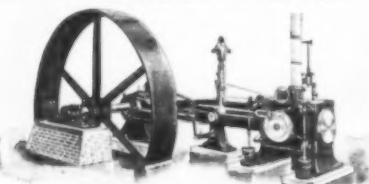
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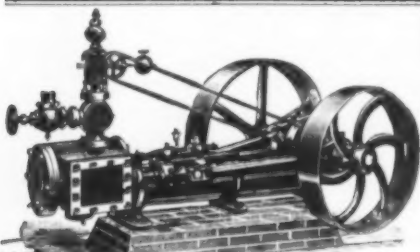
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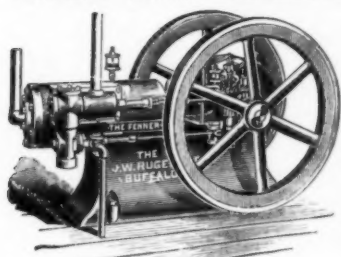
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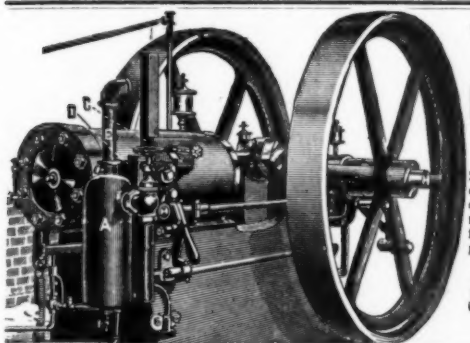
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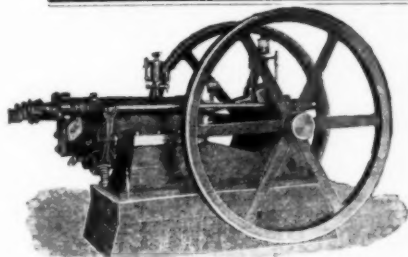
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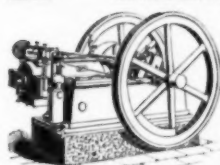
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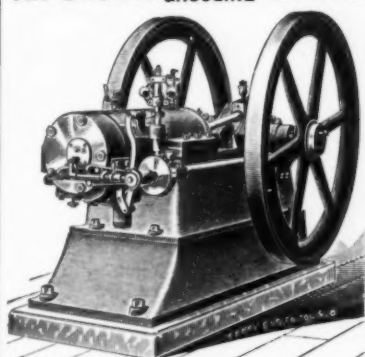
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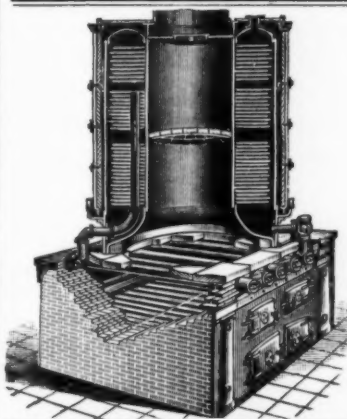
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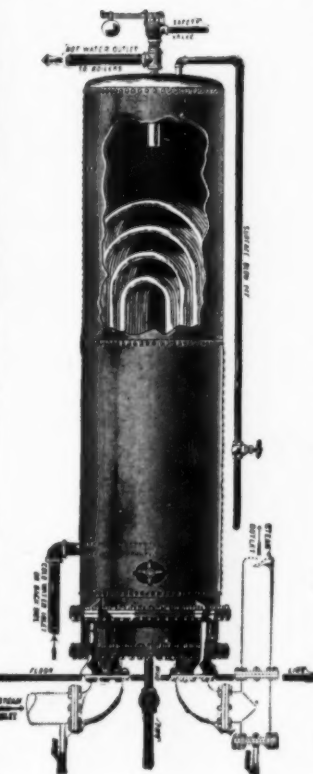
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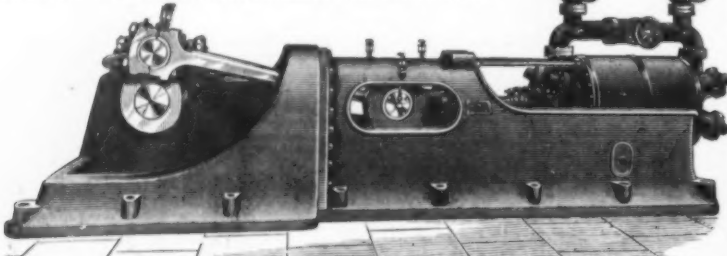
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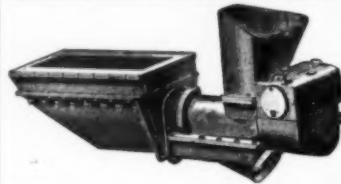
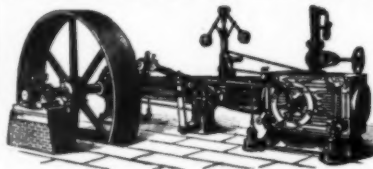
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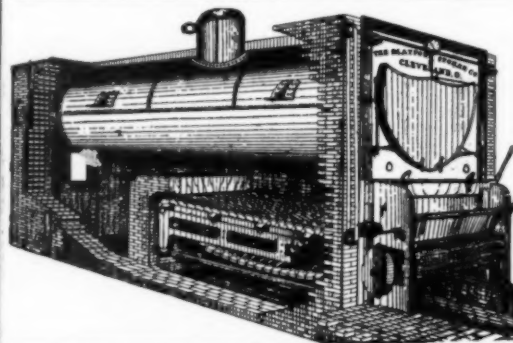
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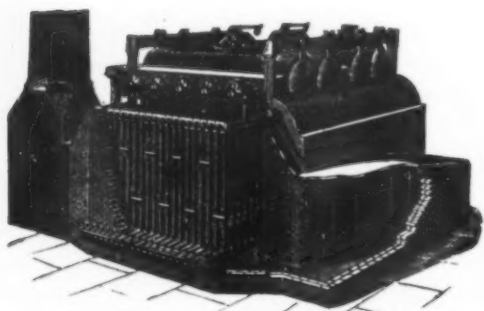
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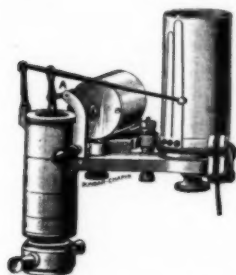
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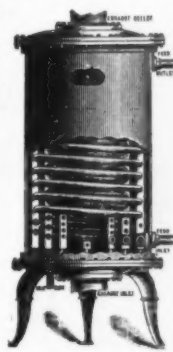
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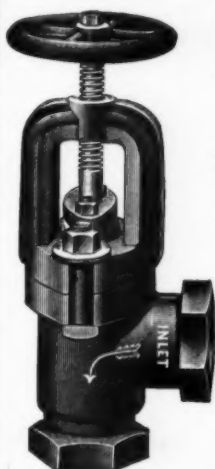
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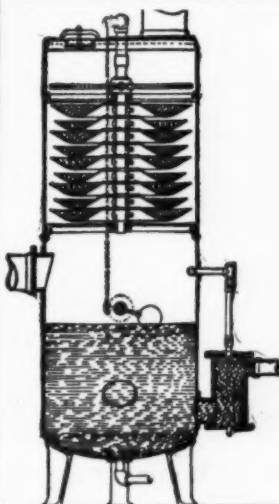
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Basket factories.....	1	123	25,000	150,000
Ware factories.....	2	13	10,000	25,000
Basket & veneer wks.....	1	250	75,000	125,000
Breweries.....	1	300	107,000	300,000
Broom factories.....	1	10	2,040	6,000
Candy factories.....	10	60	100,000	35,000
Carriage & wagon wks.....	6	100	50,000	100,000
Chlorine and vinegar.....	3	15	15,000	35,000
Cider and vinegar.....	9	200	60,000	250,000
Cotton factories.....	1	845	600,000	700,000
Cotton & wool pick'rs.....	1	20	10,000	30,000
Cotton ties, etc.....	4	63	30,000	75,000
Envelope & box fact'y.....	1	1,400	5,325,000	4,255,000
Flour and grist mills.....	12	275	150,000	700,000
Foundries and iron wks.....	3	200	250,000	300,000
Job printing.....	2	25	75,000	100,000
Knitting factories.....	8	180	375,000	450,000
Lead factories.....	1	90	34,000	40,000
Marble & granite wks.....	5	10	40,000	130,000
Mattress factories.....	2	60	40,000	75,000
Men's clothing.....	11	35	27,000	70,000
Oil refineries.....	1	90	60,000	250,000
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Shoe and boot yards.....	8	250	300,000	850,000
Shoe factories.....	3	70	75,000	175,000
Soda and candle fact'y.....	1	45	25,000	100,000
Soda and candle fact'y.....	1	15	25,000	60,000
Underwear factories.....	21	150	70,000	175,000
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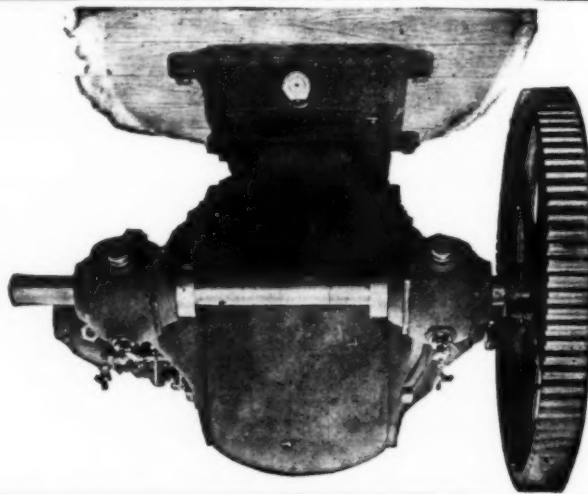
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# MANUFACTURERS' RECORD.

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER.

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WEEKLY.

BALTIMORE, MAY 13, 1898.

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BALTIMORE, MAY 13, 1898.

### For New Orleans's Commerce.

At the New Orleans Cotton Exchange was celebrated last week the unparalleled feat performed by the Illinois Central Railroad of delivering 1,000,000 bales of cotton in New Orleans in eight months. The celebration took the form of the presentation to Secretary Henry G. Hester, of the Cotton Exchange, by President Stuyvesant Fish, of the Illinois Central Railroad, of the 1,000,001st bale. The celebration was the occasion for an exchange of significant compliments. In presenting the bale for President Fish, Mr. H. C. Leake stated that to transport the cotton required 24,994 cars, made up into 833 trains, which, loaded and placed into line, would have reached 194 miles. The cotton placed along the line of the Illinois Central, end to end, would reach from New Orleans to Lake Superior, beyond Chicago. In a letter accompanying the bale President Fish wrote:

This result has been made possible through the granting by the city of New Orleans of franchises to the railroad company at the instance of the Cotton Exchange and the other commercial bodies. As the action of the exchanges and the city has been so largely stimulated by your constant and cordial co-operation, it is hoped that you will accept this trifling token of the regard which, in common with all the officers of the railroad company, the writer feels for you and the members of the Cotton Exchange. It is needless to assure you of a continuance of the efforts which the railroad company is, in common with your honorable body, the other exchanges, and, in fact, the whole commercial community, now so earnestly putting forth to develop the export and import trade of the port of New Orleans in all its branches.

In reply, Secretary Hester wrote as follows:

The fact that you have done more than any railroad corporation has ever before accomplished at any one point in the history of cotton is emphasized by the almost insuperable obstacles you had to contend with during the first three months of the cotton year. The bale, fittingly covered with the emblems of "Old Glory," is a worthy representative of a corporation that has given its best efforts toward making the Crescent City one of the greatest seaports of this country and the largest center for original cotton in the world. The cotton trade and the merchants of New Orleans, as well as the people of this city generally, appreciate the energy

and zeal you have displayed in their behalf, and which has been so ably seconded by that prince of railroad men—J. T. Harahan. The names of Stuyvesant Fish and J. T. Harahan will be treasured in the days to come as among the truest friends of this great and growing city.

In addition, the local exchanges sent the following telegram to President Fish:

The commercial exchanges of New Orleans extend their hearty congratulations to the Illinois Central Railroad on the success of a feat never before accomplished by any railroad in the United States or elsewhere—that of bringing to one port in one season over 1,000,000 bales of cotton. This is still more remarkable in face of interruptions from quarantine nearly three months of the season, and together with the vast business in other produce brought to this port, indicates the enormous value of the Illinois Central Railroad to New Orleans and the great Mississippi valley.

This incident is significant as indicating the cordial relations existing between the progressive merchants and other commercial men of New Orleans and the Illinois Central Railroad. The railroad company has encountered some difficulties in furthering its aim to share in the natural advantages of New Orleans as an exporter. It has, however, been sustained by the commercial bodies, and the way is now opening for the completion of its plans. It has not only contributed cotton to the export trade of the city, but has been largely responsible for the great increase in the grain shipments from that port. The celebration last week emphasizes the benefits to be derived from co-operation on the part of carriers of products and the business interest at the export points. The Illinois Central has under the present management become thoroughly identified with the interests of New Orleans, and it will undoubtedly reap many advantages with the development of the trade of that city.

### Weakness in Britain.

The London Engineer, excited by the news of the important contract secured for the Maryland Steel Co. for rails in Australia, says:

No doubt the English firms could have supplied the Victorian authorities, at the same figure, with rails of a sort, but we are not accustomed to jerry-built lines in this country, and the material we usually produce is essentially British in its intrinsic trustworthiness. This encroachment of the United States into our colonial territory is, however, not pleasant reading, but if checked in time it may be stopped, for British steel rail firms have not only held their own so far in the Australian market, but have made decided headway.

If the product of British steel-rail firms is no more trustworthy intrinsically than the attack by the London Engineer upon the recent enterprises of American business it is not surprising that the latter are encroaching upon Great Britain's colonial territory. If the firms share the stupidity of the Engineer the encroachments would continue whether or not American products possessed the merits which are carrying them to all parts of the world.

### COMMERCE WILL FOLLOW THE FLAG.

With each blow by the United States Navy for the ending of the war many questions arise about the effect upon the United States. Most of the conjectures, aside from those connected with naval and military movements, deal with commerce and its allies, and the consensus of opinion is that the termination of hostilities will mean a mighty expansion of our foreign trade. There are abundant reasons why this should be so. Of old it was said that commerce follows the flag. In the case of this country commerce has been rather ahead of the flag during the past twenty years, but when the flag has been triumphantly carried in both hemispheres we must look for a rapid development of the commercial interest.

In the first place, the advantages gained by the United States will be distinctly favorable to such interests. What disposition will be made of the Philippine Islands is yet to be determined, but no one can doubt that our government will see to it that in any event the importance of the islands to the United States, both as a base for naval operations and for the more peaceful pursuits of trade, shall not be diminished. The trend of trade from those rich islands has been toward the United States. There are many products grown there which are needed in this country, and the population, under enlightened government, will create an increasing demand for our manufactures. But a position in the Philippines has more than local importance. The great population of China is an element in commerce which is given great attention by at least two European powers. Russia reaching out to the Celestial Empire by its great Siberian railroad, and England acquiring Weihaiwei by lease for twenty-five years; Germany seizing Kiao Chou for a naval base, and France endeavoring to secure a foothold, are not engaged in mere naval strategies, but are indicating the intent of the countries mentioned to expedite the trade between them and China. The position of the United States in such an important harbor as Manila, for instance, is likely to have some influence upon the plans of other nations in that quarter of the globe, and there is every reason to believe that our progressive merchants will endeavor to reap the commercial advantages opened up by naval achievements. From many quarters come the assertions that, in spite of the competitive possibilities in Japanese and Chinese cheap labor, there is a decided demand for American goods in the far East.

In the Western Hemisphere the cessation of hostilities in Cuba will find the United States dominating the Gulf of Mexico. The restoration of peace in the island will permit the rapid development of its natural resources, crippled as they have been by disturbances more or less serious during the past twenty years, and will restore upon a firmer and wider basis our trade through Havana. This result may also be expected to render more receptive than ever to our commercial essays the Latin-American republics of Central and South America. With this enhanced trade in the Gulf basin and in the far Pacific, the necessity for the construction of the Nicaragua canal will be emphasized as it never has been before, and there is no reason to believe that that important work will be further postponed.

To avail itself of the opportunities in the new conditions created by the navy, this country will be impelled to develop its own shipping. It may have been an advantage during the war that less than 15 per cent. of our commerce was carried in American bottoms, but that advantage will amount to practically nothing should the other nations which have done the great bulk of our carrying trade feel called upon, as not impossible, to engage in demonstrations designed to counteract the increased prestige of this country. It so happens that the balance of force in Europe has been so delicate that no first-class nation has felt able to interfere in the contest between the United States and Spain, but it should be remembered that it has not been many weeks since astute statesmen of England, Germany and Austria were prophesying calamity to their respective countries because of the growing competition of American industries and commerce. The conclusion of the present war will undoubtedly give them more reason than ever to indulge in jeremiads on the same line, and the enlargement of our naval force will be calculated to increase the occasions whereby diplomacy may substitute a conflict at arms as a mask for commercial competition. In such an event the United States might be very much crippled by reason of its dependence

upon foreign shipping. To prevent this our own shipbuilding interests should be rapidly advanced.

Here is a great opportunity for the South. Expanding commerce should mean a growth of the Gulf and South Atlantic ports commensurate with their favorable location and their facilities for communication with the interior of the country; but, in addition to the purely trading advantages, more than one of these Southern ports should become great as a shipbuilder. In the early days of wooden vessels the South grew content to supply the raw material for shipbuilding and for the outward-bound commerce. That attitude was largely responsible for the decay of Southern ports in comparison with those north of the Delaware capes. A study of the manifestations of the twenty years before the war between the States will impress one with this fact. The lessons taught by past experiences should be taken to heart and adapted to changed conditions.

The past fifteen or twenty years have been marked by revolution in the South. Before the war there were many far-seeing men in that section who appreciated the opportunities. Dudley Mann, with his scheme for an ocean steam ferry between the Norfolk basin and Milford Haven, was carrying out the theory of Commodore Maury, who not only was the Pathfinder of the seas for the navy, but who also was alive to the commercial possibilities of his section, and who pointed the way to trade with South America. The great lines of railroad extending from Washington to New Orleans, or from Mobile to Cincinnati, or from Charleston to the West, were all planned in the fifties or earlier. The cotton-mill development in Georgia, the Carolinas, Alabama and Tennessee was begun about 1848-49, and there were many persistent advocates of the utilization at home of the mineral, forest and agricultural products of the South.

These plans have, under changed conditions, been rapidly developed, and at Baltimore and Newport News are the evidences of the enormous possibilities in the new shipbuilding. The South has already begun to use its raw material at home, and there will be in the next ten years, without doubt, great strides made in that particular industry to meet the demand for better and larger vessels sailing from Southern ports to the Latin-American republics and through the Nicaragua canal to the distant lands of the Pacific. It is incumbent upon progressive Southerners to relax none of their efforts to make the accomplishment of these possibilities prompt and effective.

#### Legislation No Remedy.

A joint special committee of the two houses of the Rhode Island legislature has been investigating the depression in the cotton industry in that State. In its report, recently submitted, after hearings attended by manufacturers, representatives of organized and unorganized labor and by others interested in the welfare of the State, it says that it had been proposed that production should be curtailed by amending the ten-hour law so as to prevent the running of factories in the State more than fifty-eight hours per week; that the present tariff rates should be reduced, and that a change in the tax laws of the State should be made exempting from taxation either machinery and personal property of mill corporations or of all personal property. The committee reports that it does not regard the arguments in favor of any of these suggestions as sufficient justification for their recommendation. The report says:

It also appeared from the testimony presented that there is no probability that any Southern State where the manufacturers enjoy the benefits of running more hours per week, and the absence of other restrictive laws, will change their policy in the immediate future. Such being the case, the only power to equalize conditions must be exercised by the national government. Your committee was asked to recommend to your honorable body that the senators and representatives in the United States Congress from this State be requested to propose the enactment of national legislation to accomplish such a result. Many authorities were cited and an elaborate argument presented to prove that Congress had the constitutional power to enact such legislation. Your committee does not consider the case sufficiently proven to recommend that your honorable body officially commit the State to the support of such a view of the powers of Congress. Your committee was also asked to request your honorable body to pass a resolution supporting a proposed constitutional amendment, now pending before Congress, granting such power. Such a

resolution has already been passed. In the opinion of your committee the facts presented call for no further action on the part of your honorable body. In conclusion, your committee reports that, while it is unable to definitely state the cause or causes of the existing depression in the cotton industry, it is of the opinion that the rapid increase of the productive capacity of the country exercises an important influence and that the discovery and application of efficient remedies should properly be made to those engaged in the industry.

Considering what has been said and written on the subject from all sorts of standpoints, this report of the Rhode Islanders is rather remarkable. It indicates that much of the talk in New England about conditions in the South has not met response from men who are accustomed to look at all sides of a question before making a decision; that in that section there are men who realize the futility of governmental interference with private concerns, and it points to the probability of a minimum of legislative action and a maximum of economic judgment in the settlement of the stringency in the New England textile industry.

#### That Winter Load Line.

The agitation on the part of certain Northern ports for the abolition of the North Atlantic winter load line is by no means neglected because of the present interest in warlike movements on the sea. The subject is kept before the British Board of Trade, and, according to a London correspondent of the New York Journal of Commerce, the tendency seems to be in favor of extending the winter load line. The correspondent states that the Southern ports will not agree to have their free board increased without a struggle, and that they are able to make out an excellent case in favor of allowing it to remain as at present. He contends that there are only two ways of settling the ques-

tion—either by abolishing the North Atlantic winter mark altogether, or arriving at some sort of compromise in the way of leveling up at one end and down at the other. We presume that the commercial interest at Southern ports are keeping their eyes upon this matter and are bringing all the influence within their power to prevent any action in a rearrangement of the load line which will place them at a disadvantage. The decision of the interstate commerce commission in favor of the Baltimore differential is likely to induce greater efforts than ever for the abolition of the load-line rule.

#### A Valuable Infection.

The industrial convention at Nashville this week is made the text by the Little Rock Gazette for a strong editorial in favor of a similar gathering in Arkansas. The paper contends that such a convention, in connection with a State exposition, would accomplish all that the State has been working for during many years; that it would secure more railroads, more workshops, more men with capital to assist in upbuilding the State. There is something contagious in the industrial-convention idea. To be effective, however, it should be developed by men devoted to the upbuilding of the material interest of the State rather than by those who make it an occasion for the advancement of their political aspirations. The list of members of the Tennessee Convention, and the topics discussed by it, show that politics have there been subordinated to material matters. If Arkansas should follow Tennessee's example, there is not a particle of doubt that the State would be given a prominence in the public mind which would result in greater development than ever of its rich mineral, agricultural and other natural resources.

#### Contentment in Progress.

The Fall River Daily Herald apparently defines contentment as the art of standing still. In a recent editorial it says:

The Manufacturers' Record still clings to a proposition which it has advanced in its editorial columns to the effect that the South can afford to devote her attention almost entirely to material advancement for some time to come. Or, if this is not stating its position fairly, it at least contends that communities in the cotton belt have no reason for following the example which Massachusetts has set in the matter of restrictive legislation, and the establishment of higher standards of living. It says on this point that when Massachusetts, a typical New England cotton manufacturing State, and recent developments here, are compared with the picture of contentment, happiness and harmony drawn in the recent report of the commissioner of labor of North Carolina, it is inclined to think that Massachusetts's progress has not done much for the masses.

In neither sentence has the Herald stated fairly the position of the Manufacturers' Record on this point. The editorial of our New England contemporary is based upon our attempt to correct its impression that the South had neglected the higher and better motives in its material progress. We asserted that though the South had probably been less infused with the materialistic tendency of the age than any other portion of the country, it had been progressing materially all the time. We also contended that the phrase "uplifting of the masses," as used by our contemporary, was rather foggy. Neither position justified the criticism of the Herald. While we recognize that progress is born in a noble discontent, we recognize that there is an ignoble discontent which has the

contrary effect. We believe that the condition in the South among cotton operatives is of the legitimate kind, and we hope that the discontent manifested in the recent demoralization in Massachusetts cotton-mill circles may never be extended to the South, because we believe that it will contribute to the happiness and welfare neither of employees nor employers.

#### Excluding a Foo.

Among persons interested in the sanitation of Southern cities there seems to be a difference of opinion about the effect of the war with Spain upon the probability of a visitation of yellow fever in the South this season. To the laymen it appears that, with Cuba blockaded, and with Havana, the nursery of yellow fever in the Gulf, cut off from the rest of the world, the possibility of the introduction of yellow fever into the Southern States would be greatly diminished. Moreover, the presence of United States troops in a number of Southern cities is likely to reduce to the minimum danger from yellow fever. The experience of New Orleans during the war comes to mind in this connection.

It would be rather an interesting object-lesson if the protection by the United States vessels of Southern ports from an invasion of armed enemies should also result in their protection from an invasion by a more insidious foe. This is not beyond the range of possibility, and such a result should be largely efficacious in combatting successfully a lurking notion in a few quarters that the United States government should not be encouraged to control the quarantine situation.

#### Dry-Docks for the Gulf.

The announcement that Pensacola and Mobile may probably be selected as the locations for two large floating docks and machine shops for the use of the vessels of the United States fleets in Gulf waters suggests that what is now a temporary expedient should become a permanency. Whatever the final outcome of the defeat of Spain may be, it is apparent that the position of the United States in the Gulf of Mexico will be of more importance than ever before, and that it will require the maintenance of a larger fleet in those waters. That situation will demand greater docking facilities. The provision for dry-dock at New Orleans need not interfere with similar provisions at other ports on the Gulf.

The Commercial Bulletin, of Boston, issued last week a special number devoted to the business and industry of Boston and New England especially. In the midst of war it is, like the Manufacturers' Record, directing the minds of its readers to the arts of peace. Should every Southern newspaper pursue the same policy, in common with papers in other parts of the country, the results in this country of the war would not be hard to describe.

The Young Men's Business Association of Richmond, Va., has issued a neat little pamphlet containing the constitution, by-laws and list of officers and committees of the organization. Glancing over the list of names one sees that representative young men in all lines of activities in Virginia's capital are interested in the work of the association. What they have already accomplished is the promise of future attainments. Mr. Henry Lee Valentine is president.



**EDUCATION AT ASHEVILLE.****Rapid Development of Facilities in Western North Carolina.**

In 1880, when the Western North Carolina Railroad pierced the Blue Ridge, Asheville was a straggling mountain village of some 1500 inhabitants. By 1890 it had become the "Queen City of the Southern Appalachians," with handsome residences, palatial hotels, water works, electric lights, electric traction lines in various directions, with the foundation of Valderbilt's "Biltmore House," the most magnificent private residence in the United States, and perhaps in the world, already laid, and with a hundred thousand visitors during the summer and winter, making it the most frequented all-the-year-round health resort in America. But with all this there was one crying need and lack. It had next to no educational facilities. But in December, 1890, the Bingham School lost its buildings in Middle North Carolina a second time by fire and was forced to seek new seats. This school, founded in 1793, by the grandfather of the present superintendent, is the only one which has come down from grandfather to grandson through three generations of distinguished teachers in continuous succession. When it became known that this famous school was to change its location, numerous sites in almost every Southern, and in at least one Northern, State were pressed on the superintendent, Maj. Robert Bingham, and in some cases great financial inducements were offered. But Asheville was chosen because nature has remarkably fitted Asheville to be one of the greatest educational centers in the United States. It is in almost the geographical center of the great region bounded on the north by the Lakes, on the south by the Gulf, on the east by the Atlantic and on the west by the Mississippi, the finest region which God's sun shines on. It has an elevation of 2500 feet, the perfect medium and compromise for the best heart and lung action. There is an absolute absence of malaria and a notable presence of ozone, the very essence and elixir of life. And there is a dryness and a balminess in the air which is specially beneficial to the nerves and to the organs of respiration. Major Bingham was the first to seize on these great requisites for an educational center in 1891.

The next educational movement towards Asheville was made by the Northern Presbyterian Church. Its work has been chiefly to prepare teachers to hold up the torch for the lighting of those who otherwise would see but little educational light. To this end this body of Christians has invested \$225,000 in building and equipping its three Asheville schools—the Farm School, for boys; the Home Industrial, for girls (both combining in wise proportions the education of the head, of the heart and of the hand), and the Normal and Collegiate Institute, which is specially intended for the technical training of teachers. The attendance on these three schools last year was 445 pupils, in charge of thirty-five teachers, all of whom come from the very best training schools for teachers in the country. As this great work, so highly beneficent, has been from its inception largely benevolent, expenses are reduced to an absolute minimum, help is given to needy pupils, and the education offered is made practical by being industrial, as well as literary, scientific and religious. Pupils from the Northern States have been excluded, the South being the location and Southern boys and girls being the recipients of its benefactions.

But so strongly has this work impressed itself on our people that the graduates of

the Normal and Collegiate Institute are recognized as expert teachers and receive first-grade certificates by act of the North Carolina legislature, just as the graduates of the State's Normal and Industrial College at Greensboro.

The next great educational forward movement was in the public schools of Asheville. A symmetrical public-school system must be a growth. It cannot be a creation. The year 1880 found Asheville practically without a public school, for the simple reason that there was almost no Asheville; 1890 found Asheville a small, indeed, but a true modern city in all but education. But soon old things passed away and all things became new, and the city's need of educational facilities was classed with its need of rapid transit, of sanitary protection, of fire protection and of paved streets, and in this view the city has in the last few years put \$45,000 (exclusive of land) into public school buildings. It has 2000 pupils, taught every year by twenty-nine skilled and enthusiastic teachers, and its educational work is presided over by a superintendent who is the peer of any public school man in the land in culture, in practical common sense, in enthusiasm, in powers as an organizer, as a financier, as a trainer of teachers and in having secured the confidence of pupils, of parents and of the city fathers. The writer has inspected public schools in many places, and is convinced, as are all others who inspect the Asheville public schools, that the public school work done here takes rank with the best public school work anywhere.

But the public schools must be supplemented everywhere with private schools, and Asheville's private schools meet the requirements in all respects. In 1886 the Misses Champion, late of New York, established their school for girls here, and it has been successful from the beginning from its refined culture and surroundings and from its thorough instruction. In 1895 Miss Harger, late of St. Paul, Minn., opened her school for girls, and it is a great addition to the educational needs of the city. The schools of the Misses Champion and of Miss Harger receive boys under ten years of age. About the same time Prof. J. S. Dickey, late of Alabama, opened his Co-educational Institute, which affords excellent facilities for the education of boys and girls, and is well patronized by the city. These schools are not administered on denominational lines in any sense; but it may interest those who are thinking of making Asheville a place of temporary or permanent residence to know that the Misses Champion are Episcopalians, that Miss Harger is a Presbyterian and that Professor Dickey is a Baptist, and that they all came to Asheville on account of its climatic advantages as a location for schools.

The next addition was the establishment by Professor Lemmond of the Southern Business College in 1892. Professor Lemmond was attracted from the Missouri State Normal College to Asheville by Asheville's central location, by its magnificent climate and by its great educational potentialities. He has had an attendance of nearly 500 pupils since he came here, representing twenty States of the Union, and he considers his outlook very encouraging. It is not claimed for the Southern Business College that it is superior to other first-class institutions of its kind in the matter of curriculum and instruction, but an equality with any in these respects is claimed for it, and superiority over any in climatic advantages.

But Asheville's latest educational attraction is Professor Jones's College for

Young Women. Professor Jones's success with his school for girls in Lexington, Mo., was very unusual. While other schools near him were languishing, his was filled to overflowing. But a better climate became necessary if his work was to continue, and he came to Asheville, with faith in the unequalled climatic conditions. He bought the former "Asheville Female College" and entirely reorganized and re-equipped it. The faculty consists of sixteen members, drawn from all parts of the country, all of whom have had college and university training. Both the college and the preparatory departments are of a high order, the latter preparing pupils for Wellesly, Vassar, Smith or any other leading college, while the former offers liberal and advanced college courses.

These excellent facilities, in the most healthful and attractive region in the United States, have brought pupils to the college during its first year in Asheville from twenty-three States, and applications for information have come from seventeen other States and from three foreign countries.

Such an advance along education lines in seven years can hardly be shown anywhere else in the world, and it assures Asheville's future as the great educational center of the Southern Appalachians.

**BUYING AT BIRMINGHAM.****Bright Outlook for the Iron Trade in Alabama.**

[Special Cor. Manufacturers' Record.]

Birmingham, Ala., May 10.

The interest recently developed in the iron market was well maintained the past week and sales have been very satisfactory. Without making any change in the quotations, one can say that there has been a little hardening of the market. The quotations prevailing are, as a rule, accepted by buyers without contention. The leading pipe works have led the buying, having the manufacturers of agricultural implements as good seconds. Behind them was the army of small buyers who usually trail on to an active movement. It certainly looks at present as though the period of low prices for the year was a back number. Still there is no undue elation, nor is there any disposition to put prices on an undue level. The idea is to keep them on a reasonable level and thus encourage and feed the demand. Large steel interests have been in the market, and the late sales of basic iron will aggregate 40,000 tons. The increase in the sales of this grade has ripened into decision what has been contemplated, and the Tennessee Company will change as soon as practicable one of its large furnaces at Ensley, adapting it to the making of basic iron. This will more than double the present output of this grade.

In the past four weeks the sales of the leading interest here will aggregate 100,000 tons of iron. Other interests report proportional sales, and all are therefore in a comfortable condition. We may look for a certain concert of action again and greater uniformity in prices. In fact, prices that were current a few days ago are not considered now, and on a basis of \$7.25 for No. 2 foundry one about hits inside figures. The probability is that there will be a slight advance in the near future. Since the use of an increased number of tuyeres has become general the output has been increased, but the increase has been of the lower grades. They have not improved the quality of the iron turned out.

In warrant iron the pressure to sell has

vanished and prices have been advanced to the usual difference between it and the furnace grades. Take it all in all, the iron sky is much brighter.

The export trade shows a revival, as inquiries were very free at acceptable figures. The difficulty with that trade now is the uncertainty of shipments. As it is, the leading interest accepted one order of 15,000 tons, delivery being practically at their convenience.

The news concerning the steel mill, in which the Tennessee Company is the prime factor, continues to be favorable. The items concerning it come from such sources that one can rely implicitly upon their correctness. Birmingham took the \$150,000 stock asked of her very promptly, and, barring the happening of the unexpected, it is "a dead sure thing." In this connection it may be said that other negotiations in this line have been under way for some time, but they have not yet come to a head. If successful, it will be a big, big thing for this locality.

As far as our local industries are concerned, there is no change to report. All are busy and some are still running double shifts, working night and day. The Alabama Bridge and Boiler Works has been given the exclusive right to make for the South the patent Zell water-tube boilers. The work given this place by the sugar country this year is the greatest recorded since its opening. The factory and shop business seems to be on the increase and growing in proportion to the efforts to increase it. J. M. K.

**Yearbook of Agriculture.**

The yearbook of the Department of Agriculture for 1897 is a volume of 792 pages. It contains an article from each chief having charge of a special branch of the department work setting forth the relation of the work of his bureau, division or office to the farmer. Eighteen miscellaneous papers were prepared by the chiefs of bureaus and divisions and their expert assistants. Their titles are as follows: "Popular Education for the Farmer in the United States," by A. C. True, Ph. D.; "Every Farm an Experiment Station," by Ervin E. Ewell; "The Fruit Industry and Substitution of Domestic for Foreign-Grown Fruits," by William A. Taylor; "Birds that Injure Grain," by F. E. L. Beal; "Lawns and Lawn Making," by F. Lamson-Scribner; "Object-Lesson Roads," by Roy Stone; "Hybrids and Their Utilization in Plant Breeding," by Walter T. Swingle and Herbert J. Webber; "The Needs and Requirements of a Control of Feeding Stuffs," by E. W. Allen, Ph. D.; "Some Interesting Soil Problems," by Milton Whitney; "Additional Notes on Seed Testing," by Gilbert H. Hicks and Sathoron Key; "Some Edible and Poisonous Fungi," by Dr. W. G. Farlow; "The Present Status of Flax Culture in the United States," by Charles Richards Dodge; "Leguminous Forage Crops," by Jared G. Smith; "Utilization of By-Products of the Dairy," by Henry E. Alvord, C. E.; "Danger of Importing Insect Pests," by L. O. Howard, Ph. D.; "The Agricultural Outlook of the Coast Region of Alaska," by Walter H. Evans, Ph. D.; "Agricultural Production and Prices," by George K. Holmes; "Rainfall of the Crop Season," by A. J. Henry.

The edition of the yearbook is 500,000 copies, 470,000 of which are by law reserved for the exclusive use of senators, representatives and delegates in Congress, and 30,000 are allotted to the Department of Agriculture. This allotment is consumed in the distribution to crop correspondents and others co-operating with the department or rendering it some service.

## RAILROAD NEWS.

[A complete record of all new railroad building in the South will be found in the Construction Department.]

### ANOTHER ROAD COMPLETED.

**The Montgomery Branch of the Mobile & Ohio and Its Importance to the South.**

The completion of the railroad between Montgomery, Ala., and Columbus, Miss., referred to in the Manufacturers' Record in its last issue, marks the culmination of one of the most important plans for railroad construction in the history of the South. The road extends from Montgomery through the western portion of Alabama, intersecting a rich agricultural territory, also tracts of land heavily timbered, and is to be connected by branches with the large coal fields in the Warren river territory. Including the branches, it will be about 225 miles in length, forming a portion of the Mobile & Ohio's system. Connecting with the main line of the Mobile & Ohio at Columbus, near the eastern boundary line of Mississippi, it gives the latter a direct entrance into Montgomery and completes a new and short route for the Mobile & Ohio from St. Louis to its southern terminus. It is understood that arrangements will be made with the Georgia & Alabama Railroad by which through freight and possibly passengers can be sent from St. Louis to the Atlantic seaboard at Savannah, Ga., by means of the Georgia & Alabama, which forms almost an air line between Montgomery and Savannah.

For the undertaking \$4,000,000 in 5 per cent. bonds was deemed necessary. These were placed on the market principally in New York, and largely through the efforts of Col. Hugh R. Garden the issue was floated successfully. A contract was immediately let to the Hanover Construction Co., which in turn placed the grading, bridgework, masonry and other sub-contracts in the hands of competent parties. The building of the road progressed rapidly, and although operations under the contracts were not begun until May, 1897, the track along the entire distance between Montgomery and Columbus was ready for rolling stock on April 28 last. Considering the magnitude of the enterprise, it was one of the most rapid pieces of railroad construction ever completed in this country, the average rate being one-half mile per day.

Arrangements have been made by the Mobile & Ohio for excellent terminal facilities in Montgomery, and the union depot built in that city partly for its use is one of the finest in the United States. It is expected to begin regular train service over the new line about June 5.

### Not Affected by the War.

While some seacoast resorts seemed to be somewhat disturbed, fearing bombardment by Spanish warships, the old city of Charleston, S. C., which enjoys the proud distinction of never having been taken by attack from the sea, seems to be doing business at the old stand with the utmost composure and confidence. It is true that the modern defences of Charleston harbor are completed and armed with the most modern breech-loading mortars and disappearing guns, and strongly garrisoned, which inspires confidence, but its people must feel absolutely secure, as they are rushing forward to completion an electric railroad to connect the city of Charleston with Sullivan's Island and the Isle of Palms, which face the ocean on the northern side of the harbor. This railroad is known as the Charleston & Seashore

Railroad, and will furnish rapid transit to the summer resorts which for many years have been in full swing on Sullivan's Island. It will also develop the Isle of Palms both as a winter and summer resort, and also connect the modern defences of the harbor with the city of Charleston.

The war may have put a stop to enterprises of a similar nature, but the people of Charleston, who are themselves carrying out this enterprise, seem to be so satisfied with the absolute safety of Charleston from attack, and also of satisfactory financial returns from this enterprise, that the work is being rushed through with the assurance that it will be completed in time to begin operating by the first week in June, which will be in ample time for this season's business.

The construction is being done in a most substantial manner, as shown by the work already completed, and, owing to the business depression in many lines of supplies and cheapness of labor, the work will be done at a cost which will require a very moderate amount of securities to be issued against the property, thus making its fixed charges very small for a property of such extent as this will be, and thus insuring a commercial success. Many of Charleston's leading business men are among those interested in the enterprise. Dr. J. S. Lawrence is president, and Maj. Geo. B. Edwards is treasurer.

### A Palatial Train Service.

A few weeks ago the Manufacturers' Record referred to the express trains which the Pennsylvania Railroad Co. has put on between New York and Chicago, and which are probably the most elaborate passenger trains in the world. Appreciating the extensive patronage it receives between New York and Washington, the Pennsylvania has had built special rolling stock for this service as well. The cars will make up the famous Congressional Limited Express, and have already been placed in service for the benefit of the public.

In external appearance the train closely resembles the new Pennsylvania Limited, red name-board, cream between the windows, and dark green below. This coloring is further enriched by elaborate decorations in gold leaf. The interior of the train is a veritable palace. The woodwork throughout is vermilion, ornamented with delicate inlaid marquetry in Persian designs. Each car is furnished in harmonious colors. The dining-car is a departure. The tables are placed directly opposite the windows, which are unusually wide, instead of between them; and instead of the fixed seats usually seen in dining-cars this car is equipped with mahogany chairs so placed as to leave abundant room between the backs. The tables on one side of the car are somewhat longer than ordinary, while those on the other side are shorter, accommodating only two persons. In consequence there is much more room on all sides than formerly.

The train is carpeted throughout with plain velvet in appropriate colors. The vestibules are of the latest wide design. The ceilings are particularly ornate. The windows of the parlor cars are also exceedingly wide. Each car is equipped with both electric and gas lights.

### Cape Fear & Yadkin Valley Division.

The United States Circuit Court has handed down an important decision in the case of the Cape Fear & Yadkin Valley Railroad, which sustains the claim of the Baltimore committee representing the bondholders, in this company. This committee, which has been contending for

the sale of the railroad as a whole, has been opposed by certain New York security-holders.

The portion of the decision sustaining the Baltimore committee is as follows:

"The court below not being compelled by the terms of the mortgages to sell the railroad by divisions, it remains yet to be ascertained whether or not the direction that it be sold as an entirety was, under the circumstances of this case, the proper exercise of judicial discretion.

"A connected railroad, one of the length, character and importance of the Cape Fear & Yadkin Valley, involving, as it does, such large sums of money to its bondholders and its stockholders, and in which the people of the State to which it owes its existence are so deeply interested, should, if at all practicable, be kept together as one system and sold as an entirety. The onus is on those who insist that it should be disrupted and sold in parcels to show the necessity for it, and to make it clear to a court of equity that good conscience and fair dealings demand it. Have the appellants succeeded in doing this? Giving due consideration to the fact that they have presented, and to the arguments submitted in support thereof, we are forced to answer the question propounded in the negative."

### Jacksonville to Montgomery.

According to a dispatch from Valdosta, Ga., the Atlantic, Valdosta & Western Railroad Co. has decided to elaborate its original plans and build a line between Jacksonville, Fla., and Montgomery, Ala. The Atlantic, Valdosta & Western is now under construction between Valdosta and Albany, Ga., a distance of seventy miles. It originally consisted of a narrow-gauge road, operated by the J. S. Baxter Lumber Co., of Haylow, Ga. The company, however, was reorganized, and it is understood that Northern capitalists, realizing the opportunities for railroad construction through this section of the State, have become deeply interested in the enterprise. The distance between Jacksonville and Montgomery is 285 miles, and if the road is completed as planned between these cities, it will become one of the most important in the South, connecting at Montgomery with the Louisville & Nashville, the Plant system and the Mobile & Ohio, and at Jacksonville with the principal trunk lines of Florida. The portion now under construction is being built by the Ferguson Construction Co., whose office is at 18 Wall street, New York. The officers of the railroad company are: Walter Ferguson, Jr., president; E. C. Weeks, secretary; E. C. Long, vice-president and manager. Their office is also at 18 Wall street. The extension from Albany to Montgomery would be 125 miles, and from Jacksonville to Valdosta ninety miles.

### Another Georgia Line.

The Georgia Pine Railroad, now under construction in Southern Georgia and Northern Florida, has been referred to recently in several issues of the Manufacturers' Record. It is understood that the company promoting it has determined to extend it to Dawson, Ga., from its present terminus.

This southern extension will pass through the counties of Gadsden and Leon, Florida, which, with Decatur county, comprise a belt where thousands of pounds of the finest cigar tobaccos are now produced annually by planters. North of Bainbridge the railroad will traverse the counties of Decatur, Miller, Early, Calhoun and Terrell, in Georgia.

When entirely completed the Georgia Pine Railway will make direct connection

with both the Georgia & Alabama and Central railroads at Dawson on the north, and the Florida Central & Peninsula Railroad at or near Tallahassee on the south.

The officers of the company are: J. P. Williams, president; A. L. Hawes, vice-president; H. J. Bruton, secretary; G. W. Haupt, treasurer, and R. B. Coleman, general manager. The board of directors includes J. P. Williams, A. L. Hawes, J. R. Sharpe, R. A. Lytle, J. W. Calhoun, J. W. Cowart, J. S. Bush, E. R. Powell and H. J. Bruton.

Mr. Williams, the president of the road, is a wholesale grocer in Savannah. Mr. Haupt, the treasurer, is also a resident of Savannah.

### Earnings Increased.

The article published in the last issue of the Manufacturers' Record relative to the effect of the war upon Southern railroads has created considerable favorable comment, as investors and others realize what the movement of troops and supplies means in the way of traffic to the railroad companies of the South. An indication of the extent of this business is shown by the report of the Louisville & Nashville for the third week in April. It is unnecessary to state that this system traverses a large portion of the Southern States, and it is one of those which will be most benefited by the extraordinary sources of revenue. The earnings for the week in question increased over \$4000 as compared with the corresponding week of 1893, and were \$53,000 larger than the third week of April in the two following years. Passenger earnings in the third week showed an increase over last year for about the first time this spring. The gain in the week was not far from \$6000, and there was also a gain in miscellaneous earnings. For the fiscal year to date freight earnings are \$80,000 larger than in the corresponding period of 1892-93, and are nearly \$2,300,000 larger than in the corresponding period of 1893-94.

### Another Maryland Line.

In a letter to the Manufacturers' Record regarding the Frederick, Thurmont & Northern Railroad, Mr. Charles C. Waters, secretary of the company, writes as follows: "We have organized our company and the officers are as follows: Col. L. V. Baughman, president; Isaac S. Annan, of Emmitsburg, Md., and Alexander Ramsburg, of L. Wistown, Md., vice-presidents; Charles C. Waters, of Frederick, secretary; Dr. Franklin B. Smith, treasurer, and R. A. Roger, engineer. The road will run from Frederick to a point at or near the division line of Pennsylvania and Maryland. It is proposed to start at once to secure rights of way, locate routes and make preliminary survey, after which subscriptions will be solicited, and, as soon as a sufficient amount of common stock is subscribed, we will start the road. It is proposed to push the matter to a speedy termination, and, if possible, it will be built within a year from this time. The length of the road will be about thirty miles, and it is intended to be a connecting link between Washington and Gettysburg. If the road once reaches the State line, it will be connected with the battlefields of Gettysburg at once."

### A Valuable Publication.

The Southern Railway Co. has published a work which will be of great value not only to merchants, but the public generally. It contains an alphabetical list of the stations on the Southern system, as well as a series of county maps of every State traversed by the company's lines, and a set of detailed maps of the principal cities served by the road. Among



the places that are thus portrayed are Norfolk, Richmond, Knoxville, Atlanta, Chattanooga, Birmingham, Louisville and Cincinnati.

#### B. & O.'s Cumberland Shops.

The Baltimore & Ohio has recently completed extensive improvements at its shops at Cumberland, Md. A new engine-house has been built, several additional dynamos placed in the plant and a quantity of iron-working machinery installed; also compressed-air apparatus. Most of the important repair work to locomotives is now performed at Cumberland.

#### Montgomery's New Depot.

The union passenger depot at Montgomery, Ala., has been completed and formally opened with appropriate ceremonies. The building, which is constructed of brick, with stone trimmings, is one of the finest in the country and is complete in every appointment. It has already been described in the Manufacturers' Record.

#### Railroad Notes.

Mr. A. G. Jones has been appointed superintendent of the Macon division of the Southern Railway system, succeeding W. R. Beauprie.

W. F. Graves has been appointed Southern freight agent of the Cleveland, Cincinnati, Chicago & St. Louis Railroad Co., with headquarters at Atlanta, Ga.

Sanford B. French has purchased the Texas Western Railroad, extending between Houston and Sealy, Texas, a distance of fifty-three miles. The line is narrow gauge.

Mr. George R. Blanchard, commissioner of the Joint Traffic Association, has been appointed chief of transportation of military and supplies to assist the Secretary of War.

J. E. McAshen has purchased the property of the Magnolia Park Railroad Co., located in the suburbs of Houston, Texas. The road has been operated by the Houston Belt & Magnolia Belt Railroad Co.

J. D. Riddell has been appointed general freight agent of the Kansas City, Fort Scott & Memphis Railroad Co., with headquarters at Kansas City, Mo. Mr. Riddell has been acting as assistant general freight agent.

At the annual meeting of the Augusta & Summerville Railroad Co., Vice-President J. M. Egan, of the Central of Georgia Railroad Co., was elected president. The line is used as a terminal railroad by the various companies entering Augusta.

It is stated that the Macon & Indian Spring Railroad Co. has purchased the electric plant of the Macon Gas & Water Co. for \$40,000. This will give the railroad company the opportunity to obtain power for its line without renting the same.

At the annual meeting of the Hearne & Brazos Valley Railroad Co., at Hearne, Texas, officers were elected as follows: President, R. V. Whitehead, of St. Louis; vice-president, L. W. Carr, of Hearne; secretary and treasurer, W. P. Ferguson, of Hearne; general superintendent, Edwin Wilson, of Austin; general freight and passenger agent, W. Kirliecks.

At the annual meeting of the St. Louis Southwestern and its branch company, the Tyler Southeastern, the following officers were elected: St. Louis Southwestern Railway of Texas—S. W. Fordyce, president; Edwin Gould, first vice-president; J. A. Edson, second vice-president; J. W. Hogan, treasurer; R. D. Cobb, secretary; George Erbeling, assistant secretary. Officers for Tyler Southeastern

Railway Co. are: H. H. Rowland, Tyler, president; Howard Gould, vice-president; J. W. Hogan, treasurer; J. P. Douglass, secretary; Guy Phillips, assistant secretary.

Hyland P. Stewart, of Baltimore, representing a syndicate, has made a proposition to purchase the city's interest in the Western Maryland Railroad for \$4,537,067. This does not include what is known as the Western Maryland Terminal Loan or the Hillen Station Loan, which aggregate about \$331,000. The proposition has been declined by the city authorities.

The issue of the Southern Field for May is an unusually interesting number. It contains a large amount of information relative to the Shenandoah valley of Virginia and summer resorts along the Southern Railway and is profusely illustrated with excellent half-tone cuts. This publication, which is issued monthly by the Southern Railway Co., is doing much toward the advancement of the South.

The Norfolk & Western Railroad Co. has recently received six Baldwin locomotives, which are being used for assisting trains on the mountain division. It is reported that they are giving excellent satisfaction. They are of the two-cylinder type, the dimensions of the cylinders being twenty-three and thirty-five by thirty-two inches. The weight is 185,550 pounds, of which 165,550 pounds are carried by the drivers. The driving wheels are fifty-six inches in diameter, the main driving wheels having standard steel centers and the others cast-iron. The tires are of Latrobe steel.

The London Timber Trades Journal, in its issue of the 30th ult., says in reference to the pitch-pine trade of the South: "Our recent articles on this subject will have foreshadowed what has come to pass, and there is now a state of uncertainty and excitement in connection with this business such as we have not known for years. There are practically no sellers in the market. We have seen offers all the way from 47s. 6d. to 50s. for thirty-two-and-one-half-foot average sawn timber, but sellers will not accept. The principal difficulty appears to be that neither steamers or sailing vessels will accept charters at the moment from any of the Gulf of Mexico ports at any rate of freight whatever, and even what would be considered extravagantly high rates a week or two ago would now be declined. The situation is entirely a novel one, and such as has not been known during the history of the pitch-pine trade. It is impossible to quote prices at the moment, as actual transactions are almost nil. The stocks on hand of sawn and hewn timber at the principal ports on 31st March last, though heavy at the time, could not possibly sustain a long drain at the present rate of consumption, and it is doubtful to what extent either Baltic or German timber can come to the rescue. No one knows, and very few venture to prophesy, what the effect of the war will be either weeks or months hence. We can only chronicle the fact that for the moment prices are speculative, and the war risk is a contingency which we should strongly advise all our friends to have properly covered, not only in their present contracts, but in any policies submitted to them for present acceptance on cargoes either loading or afloat."

Representatives of the Houston Business League, San Antonio and Aransas Pass Railway Immigration Association and other organizations are working vigorously for the proper representation of South Texas interests at the Omaha Exposition.

## COMMERCE.

This department is devoted to a record of the rapidly developing commerce of Southern ports.

### THE PHILIPPINE TRADE.

#### Interest of the South in Its Development.

In a special report on the Philippine Islands, Consul Oscar F. Williams says that during the quarter ended December 31, 1897, there were exported from these islands to the United States and Great Britain 216,898 bales of hemp (280 pounds per bale), of which 138,792 bales went to the United States and only 78,106 bales to Great Britain. During the year 1897 there was an increase in the export of hemp from the Philippines to Continental Europe of 19,741 bales; to Australia, 2192 bales; to China, 28 bales; to Japan, 2628 bales, and to the United States, 133,896 bales—a total increase of 158,485 bales; while to Great Britain there was a decrease of 22,348 bales.

Thus, of increased shipments from the Philippines, those to the United States were 544 per cent. greater than to all other countries combined.

Of the total exports of hemp from the Philippines for the ten years ended 1897, amounting to 6,528,965 bales (914,055 tons), 41 per cent. came to the United States.

During the same years the Philippine Islands exported to the United States and to Europe 1,582,904 tons of sugar, of which 875,150 tons came to the United States, 666,391 tons to Great Britain and 41,362 tons went to Continental Europe, showing that of the total exports more than 55 per cent. came to the United States.

At the current values in New York of hemp (four cents per pound) and of raw sugar (three and three-eighths cents per pound), the exports of these two products alone from these islands to the United States during the ten years under review amounted to \$89,263,722.80, or an average of nearly \$8,926,372 per year.

Data as to cigars, tobacco, copra, woods, hides, shells, indigo, coffee, etc., are not now obtainable, but a conservative estimate would so raise the above figures as to show United States imports from these islands to average about \$1,000,000 per month.

In 1897 the value of imports from the United States was \$94,597, divided as follows: Cotton manufacture, \$2164; oils, \$45,908; varnish, \$2239; all other, \$44,286.

It should be noted that our trade is really much larger (especially in the item of exports to the islands) than is indicated by the above figures. Large quantities of provisions (flour, canned goods, etc.) are sent to Hong Kong or other ports for transshipment, and are credited to those ports, instead of to Manila.

#### New M. & M. Steamship.

The Merchants & Miners' Transportation Co. has already given out one contract for a steamship to replace one of those recently secured by the government. It will be built by the Harlan & Hollingsworth Co., of Wilmington, Del. The following is a brief description of the new vessel: Length over all, 293 feet; length between perpendiculars, 270 feet; molded beam, forty-two feet; depth of hold, thirty-four feet, with a capacity of 2550 tons.

#### Wharf Property Bought.

According to a dispatch from Galveston, Texas, a New York syndicate has purchased 2200 acres of land at Virginia

Point, on Galveston harbor, for \$121,000. It is stated that the property, which is very desirable for wharves and other railroad terminals, has really been secured by representatives of Mr. C. P. Huntington, and that here the Southern Pacific will have its Galveston terminus.

#### Jottings at the Ports.

The Baltimore Steam Packet Co., also the Baltimore Chesapeake & Richmond Steamboat Co., announce until further notice that steamers will leave for Old Point Comfort and Norfolk from Baltimore at 5.45 P. M., instead of 5.30, as heretofore.

According to a dispatch from Norfolk, Va., the Chesapeake & Ohio Railroad Co. is preparing to begin work in improving its terminal property on the water front in that city. It is stated the city council is prepared to open several streets which will connect with the property, and that the railroad company is to secure right of way for grading for tracks which will reach the property.

#### Power of Yadkin Falls.

It has been announced that plans are being formulated for the thorough development of the water-power of the Yadkin falls, Yadkin river, in Stanly and Montgomery counties, North Carolina, about twenty-six miles from Salisbury. Capitalists of Scranton, Pa., and other Northern cities are reported as interested, and it is stated that a \$1,000,000 stock company will soon apply for a charter of incorporation and commence the work of development. It is contemplated to erect a large electrical plant for transmitting the power to miscellaneous factories throughout the region of the falls. Mr. F. B. Arendale, of Raleigh, N. C., is interested in the project and has telegraphed the Manufacturers' Record that the power at Yadkin falls has been bought with a view of development, but that plans for actual work have not as yet been formulated.

#### Scarcity of Natural Ice.

One effect of the present war with Spain has been to stop the shipment of ice from New England to Southern points to a great extent. Companies securing ice from the Kennebec river and other sources in Maine as a rule obtain it by the schooner load, as the freight by water is much lower than all rail. The war insurance risks has raised the price of charters to a very high rate. In consequence of this state of affairs, Southern concerns which have been using natural ice will be obliged to a large extent to depend on artificial ice, and the indications are that the demand for ice machinery in the South will be considerably increased.

At the annual meeting of the Dallas (Texas) Commercial Club it was reported that the organization had done valuable work in bettering Dallas as a cotton market, in furthering civic improvements and in attracting conventions to the city. During the year about 3000 carefully prepared communications were mailed to various cities and towns in the country, which have brought forth frequent inquiries from capitalists. The club elected for the year the following officers: President, A. Sanger; first vice-president, C. L. Wakefield; second vice-president, J. E. Schneider; directors, S. I. Munger, J. D. Padgett, M. Mahana, Charles Steinmann, J. F. Zang, J. E. Farnsworth, C. A. Keating, E. Tietch, T. F. McEneis and R. E. L. Saner.

Oscar Fenley has been elected president of the Bank of Kentucky, at Louisville, Ky., succeeding J. M. Atherton.

## TEXTILES.

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the Manufacturers' Record. We shall be glad to have such matter at all times, and also to have any general discussion relating to cotton matters.

## A Round-Bale Plant.

The illustration on this page of the round-bale plant of Wood, Burks & Green, of Ripley, Tenn., gives a fair idea of the appearance of the baling by the cylindrical compress of the American Cotton Co. The firm used the compress last season and found it the most complete way of putting up cotton for shipment

of Gaffney, S. C. The picture gives some idea of the extent of the enterprise in question, which is one of the most modern and best-equipped plants in the South. The company operates 51,116 Whitin gravity spindles, 1400 Draper-Northrop looms and the necessary power plant, and its employes number 550. The product is print cloths and convertible cotton goods.

The company has a capital of \$700,000, and its officers are Mr. H. D. Wheat, president; S. L. Cutting, superintendent, and J. G. Wardlaw, secretary-treasurer.

## Textile Notes.

Mr. C. H. Reynolds (address care of the Eastern Building and Loan Association), of Syracuse, N. Y., is asking for estimates on the equipment complete of a 3000-spindle mill for 10s and 12s yarns, and it is presumed that the plant is to be erected in the South.

## COTTONSEED OIL.

This department is open for the full and free discussion of trade topics and practical questions, and contributions are invited from men who are identified with this industry. Items of news are always acceptable.

## The Market for Cottonseed Products.

New York, N. Y., May 11.

No important change has occurred in the market for cotton oil during the week. The improvement in prices in allied products has not been reflected in cotton oil to the extent which holders anticipated, nevertheless the market is in a strong and healthful condition. Buyers and sellers are still imbued with opposite views with regard to prices, but the latter practically control the situation. While refined has remained unchanged in price, crude at the mills has advanced, tank lots having been sold today, Atlantic coast points, at 16½

26½ to 27 cents; winter yellow, 28½ to 31 cents; salad oil, 29½ to 31 cents, and soap stock, ¾c. to ⅞c. a pound. Winter yellow and butter oils, choice grades, are in better demand, as are the higher grades generally. Exports for the week amount to 6780 barrels, half of which is destined for France, the remainder going to Holland and England.

Cake and Meal.—Exports are reported light, while domestic trading is restricted, owing to the high inland freights.

## Cottonseed-Oil Notes.

Mr. Edwin Lehman Johnson, of Fort Hill, S. C., has discontinued his work as consulting expert on cottonseed oil until the war with Spain is over. He has volunteered with a South Carolina company for two years or until the war is ended.

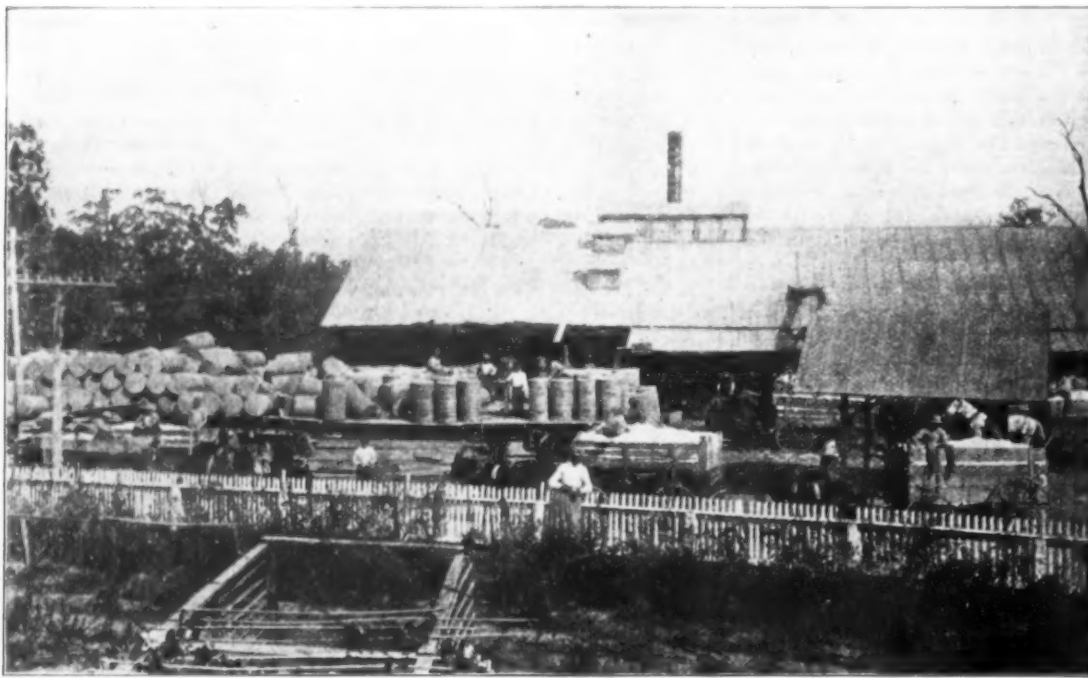
The following exports of cottonseed products for Great Britain and Continental ports were among those reported for the week ending May 6: Baltimore, 3,406,242 pounds of cottonseed meal, 440,000 pounds oilcake and 61,000 gallons of oil; New Orleans, 56,000 bags and 200 tons of meal, 110 tons of oilcake and 41 cases of oil; Galveston, 66,221 bags of cottonseed meal and 12,300 barrels of oil.

Texas oil mills are now preparing for the new crushing season and old stocks of cake, meal and oil are being rapidly reduced. The foreign demand has recently absorbed large lots of meal and cake. Prices are steady, without change, as follows: Prime crude oil, loose, 14½ to 15 cents, and prime summer yellow, 16½ to 16¾ cents; cake and meal, \$15 to \$16.50 per short ton, all f. o. b. mill at interior Texas points, according to location.

The local demand for cottonseed products in New Orleans is light, while for the foreign export trade there is considerable moving. Values are about steady, with stocks somewhat reduced by recent shipments. Receivers' prices are reported as follows: Cottonseed, \$7 per ton of 2000 pounds net to the mills, no commission of any kind to be added; cottonseed meal, jobbing per carload at depot, \$17.50 per short ton of 2000 pounds; for export per long ton of 2240 pounds f. o. b., \$19.50; oilcake for export, \$19.50 per long ton f. o. b.; crude cottonseed oil, at wholesale or for shipment, strictly prime oil, crude, 15½ cents loose f. o. b. tanks at Mississippi valley points; in barrels, 18 to 18½ cents; cottonseed hulls delivered per 100 pounds, according to location of mill, 12 to 17½ cents; linters, according to style and staple—A, 3½ cents; B, 3½ cents; C, 2½ to 3 cents; ashes, none; refined cottonseed oil, prime in barrels, per gallon, at wholesale or for shipment, 21½ to 22 cents for export.

The first annual convention of the National Hardwood Lumber Association was held last week in St. Louis, when all the lumber markets of the middle West and some Eastern cities were represented. The principal object of this association is to establish a uniform grading for all hardwood lumber. The chief business of the convention was confined to the election of a regular board of officers and the establishment of a board of inspectors. The officers of the association elected were as follows: W. A. Bennet, of Cincinnati, president; F. H. Smith, of St. Louis, vice-president; A. R. Vinridge, of Chicago, secretary, and W. C. Bailey, of Chicago, treasurer.

Bulletin No. 16 of the United States Department of Labor—the issue for May—contains the report of Expert Sam C. Dunham on the Alaskan gold fields and the opportunities they offer for capital and labor.



ROUND-BALE PLANT AT RIPLEY, TENN.

and for storage if the farmer does not wish to sell. The firm contends that ginning for the farmer is the cause of having a lot of cotton lying around and damaging to some extent; where, if the gin bought the cotton in the seed, it could be shipped out as fast as there was a carload.

## The Cotton Movement.

In a review of the cotton movement for eight months ended April 30, Secretary Henry G. Hester, of the New Orleans Cotton Exchange, shows that the amount of crop brought into sight was 10,558,111 bales, an increase of 2,311,882; exports 6,688,215 bales, an increase of 1,215,886; takings by Northern spinners 2,134,450 bales, an increase of 530,633; by Southern spinners 882,677 bales, an increase of 45,471 bales. Reckoning that the same percentage of the crop as that of last year has been brought into sight, the total crop should amount to 11,213,797 bales. For the season up to May 6 the movement into sight was 10,606,508 bales, an increase of 2,326,241; exports 6,779,748 bales, an increase of 1,215,908; takings by Northern spinners 2,141,452 bales, an increase of 519,905; by Southern spinners 897,709 bales, an increase of 46,757 bales.

## The Gaffney (S. C.) Mfg. Co.'s Mill.

The Manufacturers' Record acknowledges the receipt of a large and handsomely framed picture of the extensive mills of the Gaffney Manufacturing Co.,

of Gaffney, S. C. The picture gives some idea of the extent of the enterprise in question, which is one of the most modern and best-equipped plants in the South. The company operates 51,116 Whitin gravity spindles, 1400 Draper-Northrop looms and the necessary power plant, and its employes number 550. The product is print cloths and convertible cotton goods.

Inquiries from foreign merchants who desire to buy American goods are coming to the National Association of Manufacturers in such numbers that it is no longer practicable to transmit them by letter to the members who might be interested. In order to bring these inquiries before the members promptly and in convenient form, they will be given out in the form of printed bulletins to members of the association. These inquiries come direct to the association from the merchants whose names are given, and they therefore represent the actual wants of buyers.

The Knoxville Chamber of Commerce has resolved to appoint a committee to co-operate with the Tennessee commissioners to the Omaha Exposition for the purpose of making an exhibit of the marble, coal and other mineral resources of East Tennessee, and also of its agricultural and horticultural products.

The Commercial and Industrial Association of Montgomery, Ala., is securing additional membership daily.

It is estimated that the wheat crop this year of Texas, Oklahoma and Kansas will be 100,000,000 bushels.

cents f. o. b. Prime yellow is distinctly firm at 25 cents, which is relatively lower than crude, due in part to manipulation. Owing to the higher market in wheat, lard is steadily moving upward, Chicago delivery, July, being quoted at 5.92½ cents. Compound lard is selling at this market at 4 to 4¼ cents, and Western at 4¼ to 4½ cents. Tallow is firmer at 3¾ cents at this market, with a good local demand. While receipts for the week have been comparatively heavy, only small lots on dock are offered, the remainder passing into store or for export. Very little choice quality is arriving. The trade looks for an early termination of the war, when activity in all lines will be resumed. It is safe to assume, however, that should the war be long or short, prices of commodities allied to cotton oil will advance, a circumstance that is well understood by important holders of the latter article. It is understood that Western packers have been anxious purchasers of cotton oil, while the scarcity of freight, due to heavy wheat exports, is the prime cause of the slowness in the export trade. Cotton oil in England and France is strong on the late advance, while a good consumptive demand obtains. Liverpool, England, quotes refined cotton oil firm at 16s. 9d. The following are closing prices: Crude, 20½ to 21 cents; crude, loose, f. o. b. mills, 16 to 17 cents; summer yellow, prime, 24½ to 25 cents; summer, off grades, 24 cents; yellow, butter grades, 27 to 28 cents; white,



**LUMBER.**

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

**LUMBER MARKET REVIEWS.****Baltimore.**

Office Manufacturers' Record,  
Baltimore, Md., May 12.

The local lumber market today may be written fairly active under war conditions. Indications at the moment point to a clear coast and a renewal in the volume of business of coastwise shipments of lumber and other wood products. Receipts during April were generally light, owing to scarcity of vessels and risk of capture by the Spanish, but during the past week the offering of tonnage has been more liberal, with rates from all South Atlantic ports materially reduced. At the moment stocks of lumber in this city are fully ample for the demand, while prices have appreciated on certain grades and dimensions. In yellow pine there has been a good inquiry from the usual sources, and box lumber and flooring grades are firm. White pine is selling more freely, with stocks well assorted and prices steady. The hardwood market is moderately active, there being a good local as well as out-of-town inquiry. Southern poplar in the lower grades is selling freely, while the demand for the better class of material is light. Stocks of oak are light and values firm. From furniture manufacturers and other wood-working concerns there is a fair inquiry for all woods for manufacturing purposes. The foreign export business, while at the moment showing very little expansion in volume, is in fair shape, and from buyers in Great Britain and the Continent there are numerous inquiries for yellow-pine lumber and hardwoods.

**Savannah.**

[From our own Correspondent.]  
Savannah, Ga., May 9.

Notwithstanding the war with Spain, there still continues to be developed in nearly every branch of the lumber market of this port a fairly active business. During the past week five schooners sailed with full cargoes of lumber, and all steamers leaving this port carry the usual complement of wood products. The shipments last week amounted to over 3,000,000 feet, distributed as follows: Philadelphia, 1,820,000 feet of lumber; New York, 342,621 feet; Baltimore, 598,262 feet; Boston, 24,615 feet, and Rondout, N. Y., 323,162 feet. There is a better offering of tonnage today, and as long as the coast is clear of the enemy all vessels usually in this trade will remain. Prices of lumber continue very firm for desirable grades, and the demand is quite as pronounced as it was during April. The question of securing vessels at reasonable rates is now the only drawback to the general market. In New York the following charters were closed during the week: Schooner B. R. Woodside, 422 tons, hence to Philadelphia with lumber at \$5.50 and free wharfage; schooner City of Jacksonville, 337 tons, hence to Baltimore with lumber at \$6, coal out \$1.25; schooner Laura, 485 tons, Brunswick to Portland with lumber at \$6.25, and a schooner from Brunswick to Providence with lumber at \$6.50.

**Norfolk.**

[From our own Correspondent.]  
Norfolk, Va., May 9.

The situation at the moment in everything connected with the lumber industry of this port is much more satisfactory and in all channels of the market there seems to be very little, if any, notice taken of

the war, as far as the output of lumber is concerned. It may be stated that the Spanish trouble has improved the market, and it is the opinion of lumber experts that North Carolina pine will be benefited by the war. Saw mills at this and adjacent points are all running on full time and a number of mills are rushed with orders, and both water and rail shipments are larger than usual under present conditions. The demand for box lumber is better and prices firmer, while there is better inquiry from Northern sources. There is a good foreign demand for the better grades of North Carolina pine, and shipments for the present month are likely to be large. The advance in freights will likely narrow the margin of profit somewhat on foreign orders, and those taken thirty days ago, filled at present rates, will show a loss of about \$1 a thousand feet. Planing mills are all busy and some working overtime, while box factories and other wood-working concerns are generally busy. The coastwise trade today is in better shape, owners of vessels offering tonnage more freely. Rates of freight on lumber are higher, owing to scarcity of tonnage. The schooner Albert Mason, 271 tons, was chartered this week to load kiln-dried lumber for Bangor at \$3.75, and the schooner Ravola to load oak for Dorchester, N. B., at \$8.

**Jacksonville.**

[From our own Correspondent.]  
Jacksonville, Fla., May 9.

There is a much better feeling here today in the general lumber market following the news of Admiral Dewey's victory at Manila, and during the past week there has been a better tone to the general trade of this port. As to the demand for lumber, there has been no falling off in orders, and the great drawback has been the scarcity of desirable vessels which advanced freight rates to the excessive point. There is today, however, a falling off in rates, and charters made a few days ago to carry lumber at \$7 to Northern points are now made at \$1 less. Charters to load lumber at Fernandina for Boston were made last week at \$5.50 and \$6 for quick delivery. Lumber men here think that rates will soon equalize themselves with the market, to enable shipments of lumber to be resumed as formerly. Indications today point to a better offering of tonnage, as there are a number of coalers bound South for the government which will take back lumber. Steamer rates have not been changed, and the Clyde Line takes out with every vessel her usual complement of wood products. Prices of lumber are generally firm, with an advancing tendency, and mills both here and at adjacent points are all running on full time, while stocks are generally well assorted. During the past week the following vessels cleared with lumber and other wood products: Schooner Austin D. Knight for Boston with 319,000 feet of lumber; schooner William T. Donnell for Portland, Me., with 400,000 feet; steamer Algonquin for New York with 275,000 feet of lumber, 8000 bundles of shingles and other cargo, and the steamer Seminole for the same port with 180,000 feet of lumber, 2300 crossties and 3500 bundles of shingles among her cargo. The schooner Edward G. Wright cleared for Baltimore with 340,000 feet of yellow-pine lumber. There are half a dozen vessels here to load lumber and as many more due to arrive this week. On Saturday in New York the following charters were closed: Schooner Thos. Winemore, 361 tons, hence to Philadelphia with lumber at \$6.50, and schooner B. N. White, 394 tons, hence to Washington with lumber at \$6. The Norwegian bark N. Neilson cleared last week for

Sharpness with a cargo of 30,626 pieces of timber containing 316,984 feet. The cargo was cleared by the Atlantic Coast & Export Co.

**Mobile.**

[From our own Correspondent.]  
Mobile, Ala., May 9.

The week under review has been one of considerable activity in the lumber and timber trade of this port. Shipments of sawn timber during the past week aggregated 236,995 cubic feet, and of hewn timber 200,473 cubic feet, for ports in Great Britain and the Continent. The tone of the market is steady, with a good demand for hewn timber at 11 to 12½ cents per cubic foot, while sawn timber is dull at 9 to 9½ cents per cubic foot. There is very little new business reported in timber, and under present freight rates and the unsettled state of affairs caused by the war with Spain business is quiet. Among the vessels clearing last week were the following: Ship Premier for Greenock with 19,230 cubic feet of hewn timber, 60,109 cubic feet of sawn timber and 14,598 feet of lumber; steamer Dalmally for Liverpool with 100,908 cubic feet of hewn timber and 44,026 feet of lumber; bark British America for Dordrecht, Holland, with 27,457 cubic feet of hewn timber, 30,703 cubic feet of sawn timber and 28,996 feet of lumber; barkentine Transport for Stavanger, Norway, with 9335 cubic feet of hewn timber and 2642 cubic feet of sawn timber; bark Accame for Southampton with 26,766 cubic feet of sawn timber, 44,443 cubic feet of hewn timber and 78,720 feet of lumber; ship Parthenia for The Tyne with 6488 cubic feet of sawn timber and 49,300 feet of lumber; steamer Kassala for Greenock with 110,287 cubic feet of sawn timber and 154,797 feet of lumber; schooner Knowlton for Port-au-Prince, Hayti, with 242,000 feet of lumber, and schooner Durant for Vera Cruz, Mexico, with 120,468 feet of lumber. In freight on lumber there is very little tonnage offering and rates are unsettled. Rates on lumber and timber to the Continent and United Kingdom are as follows: Steam, £6 per standard, and sail, 31s. per load for hewn timber, and £5 10s. per standard for sawn timber. There are no new charters reported.

**Lumber Notes.**

Messrs. Warfield & Bland, of Beaumont, Texas, have opened an extensive lumber yard at Sabine Pass. The firm has good prospects for a success of their enterprise.

The Beaumont Lumber Co., of Beaumont, Texas, shipped during the month of April over 5,000,000 feet of lumber, and expect to do as large a business during the present month.

The saw-mill plant of W. D. Reeves, of Helena, Ark., together with a large quantity of lumber, was burned on the 1st inst. The loss is estimated at \$100,000, with insurance amounting to \$30,000.

The schooner Nelson E. Newberry cleared from Charleston, S. C., last week for New York with 500,000 feet of lumber, and steamer Delaware for Boston with 7440 feet of lumber, with other cargo.

The spoke and handle factory of John F. Simmons, of Rowesville, S. C., was destroyed by fire on the 30th ult. The loss on building, material and machinery will amount to about \$5000, with only \$1500 insurance.

The Spanish bark Counsello arrived at Brunswick on the 2d inst. from Buenos Ayres to load lumber, and the Spanish bark Antonio Jane is also chartered to load lumber from M. Padrosa. Several

more Spanish vessels are due to load with wood products.

The extensive saw-mill plant belonging to the Jeannerette Lumber & Shingle Co., of Jeannerette, La., was totally destroyed by fire on the 1st inst. The plant was valued at from \$50,000 to \$60,000, with insurance about \$40,000.

The Gauley Heading & Stave Co. was chartered last week at Charleston, W. Va., with a capital limited to \$50,000. The incorporators are William Dickinson, John L. Dickinson, John C. Malone and C. G. Peyton, all of Charleston.

The Latcher & Moore Lumber Co., of Orange, Texas, accepted an order last week for railroad ties and timber from a railroad in Mexico that aggregated more than 1,500,000 feet. The contract leaves it optional with the company to ship by water or rail route.

John R. Green, of Christian county, Kentucky, it is stated, has just closed a contract with the Illinois Central Railroad Co. to furnish 30,000 cedar posts, delivered on the track five miles from Hopkinsville. Mr. Green has on his property a large grove of cedars, which have been practically worthless for years.

It is stated that the Hon. John B. Stetson, who owns extensive orange groves in Florida, is about to erect sheds around and over his orange trees. He purchased last week the saw mill of James M. Price & Son, at De Land, Fla., for his private use, and his first work will be to saw 1,000,000 feet of lumber for building purposes.

The mammoth planing mills and factory of Jones & Pollard, at Columbus, Ga., were destroyed by fire on the 6th inst. The total loss is estimated to be at least \$30,000, while the insurance is about \$12,500. A large amount of lumber and manufactured goods was totally destroyed. The plant was one of the largest establishments of the kind in the South.

At Darien, Ga., the timber trade is somewhat depressed on account of the excessive freight rates and scarcity of desirable vessels. During the past week there were shipped from that port 3,044,100 feet of timber and lumber valued at \$30,842. The shipments for April to foreign and coastwise ports amounted to 14,504,041 feet of hewn and sawn timber and lumber valued at \$149,203.

Mr. A. Delavigne, secretary of the Mechanics, Dealers and Lumbermen's Exchange of New Orleans, reports the receipts of building material in that city for the week ending May 6 as follows: Lumber 1,485,000 feet, shingles 294,000, oak staves 105,358 and cypress staves 24,500. The total receipts of lumber for the season amounted to 53,129,150 feet, against 50,553,000 feet for the corresponding period last year.

The Galveston News of the 7th inst., in commenting on the lumber trade of Orange, says: "Besides heavy shipments by barge lines to Sabine Pass and by schooners for export and to Atlantic points, Orange sent away 743 cars of lumber during the month of April. That was 137 cars more than were shipped from this place in April, 1897, and only twelve cars short of the number loaded here in March of this year. Mill men say that orders were plentiful and lumber cut to have loaded fully 150 cars more had the railroads been able to furnish the cars. \* \* \* The demand for railroad material has not fallen off to any extent; new inquiries are about as frequent as they have been and some of them are being funded. Mexico remains the largest consumer, and shipments both by water and by rail are being hurried forward."

## MECHANICAL.

## The Star Anti-Friction Ball Retainer.

That considerable progress has been made within the past decade in the development of the bicycle is evidenced by a comparison of the article of today with that of ten years ago. The change in its construction outwardly is singularly apparent. In the bearings, however, particularly in the disposal of the balls, the Star Ball Retainer Co. claims very little progress has been made, and that, per-

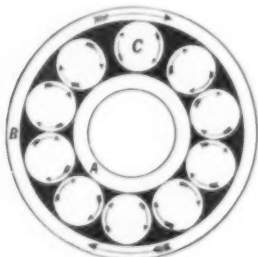


Fig 1

haps, with a single exception only, makers place the balls in a cup upon the shaft and the balls are allowed to find their own positions during the period of momentum, falling one upon the other and each acting as a retarder for the other, with the result that there is a sliding friction manifestly opposing. This condition is shown in Fig. 1, in which B is a revolving cup, C the balls in motion, and A a stationary retaining cone, the arrows fully indicating the retarding motions of the balls.

With the idea of reducing this friction

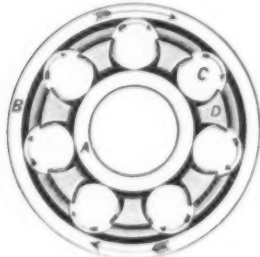


Fig 2

to a minimum the ball retainer shown in Fig. 2 has been designed. In the illustration the cup B is revolving in the direction indicated by the arrows, the balls C are revolving in the same direction as the cups and the cone A is stationary. The retainer D moves with the balls and causes them to roll on the cone without any opposing or sliding friction and without contact one with the other. The action of the retainer offers no resistance to the balls other than that due to its weight, which is too light to be taken into account. With the retainer, the balls in

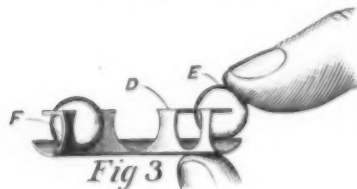


Fig 3

a bearing are loaded equally, while in bearings where it is not used it is well known that at the top of the bearings the balls are loose and there is no contact between the bearings and the balls at that point. After an unretained ball crosses the top center of a bearing the weight of the ball itself is conveyed to enough of its fellows in front to throw their combined weight against the ball that is locked between the cup and the cone. Such a condition is not possible where the retainer is used, the revolution of each ball being

regular and without any more friction at one point than another.

The retainer is made from light-gauge cold-rolled strip steel, stamped up in one piece, as shown in the half section in Fig. 3, the balls springing lightly into their proper positions and remaining there. Fig. 4 shows the retainer with balls complete, and it will be noticed that when this retainer is used fewer balls are required, and the amount of balls used can be further reduced and still retain its practical working qualities. Actual experiments and calculations made by the maker and others have shown that in the working of a bearing equipped with the retainer



FIG. 4.

the avoidance or saving of friction reaches a maximum of 40 per cent.

The retainer is made in a variety of sizes and adapted for all purposes where ball bearings are used. As the device is intended for use on old as well as new wheels, it should prove of equal interest to consumer, repairman, dealer and manufacturer.

The maker of the retainer is the Star Ball Retainer Co., Limited, of Lancaster, Pa.

## A New "Bliss" Spinning Lathe.

The spinning lathe illustrated constitutes a part of a plant for making large

lathe carriage, with a transversely sliding tool post, serves as a support for the burnishing roll. To the sliding tool post there is a heavy weight attached by means of a chain running over sheave on the carriage. This weight tends to bring the roll up against the work, and under the pressure of the weight the rolls follow the shape of the chuck, while a head-screw advances the carriage up towards the head stock of the machine. This head-screw is driven from the main spindle by chain gearing, and an automatically opening nut is provided in the carriage, so that the carriage will stop when the roll has covered the desired distance.

The shells worked in this lathe require, besides spinning, also a flanging operation, so as to prepare them for double seaming. This flanging is done by using a burnishing roller as soon as it has come in the proper position for a flanging chuck. A second roller, mounted near the head stock, between the large gear and the chuck, on the transversing rest, is then moved outwardly and straightens the flange of the shell by crowding it against the burnishing roll.

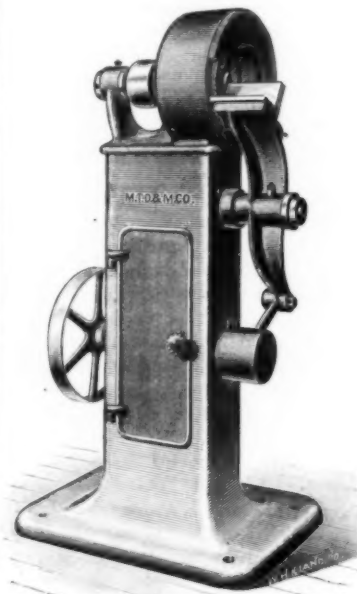
The tail stock is movable the same as in all deep-shell spinning lathes, and is provided with heavy clamps to avoid slipping.

The lathe is heavily geared, and the back shaft is provided with a heavy friction-clutch pulley and a powerful brake, which are both actuated by a hand lever within easy reach of the operator, who can start and stop the machine instantly, notwithstanding the heaviness of the revolving masses.

The manufacturer of this lathe is also designer and builder of a very large line

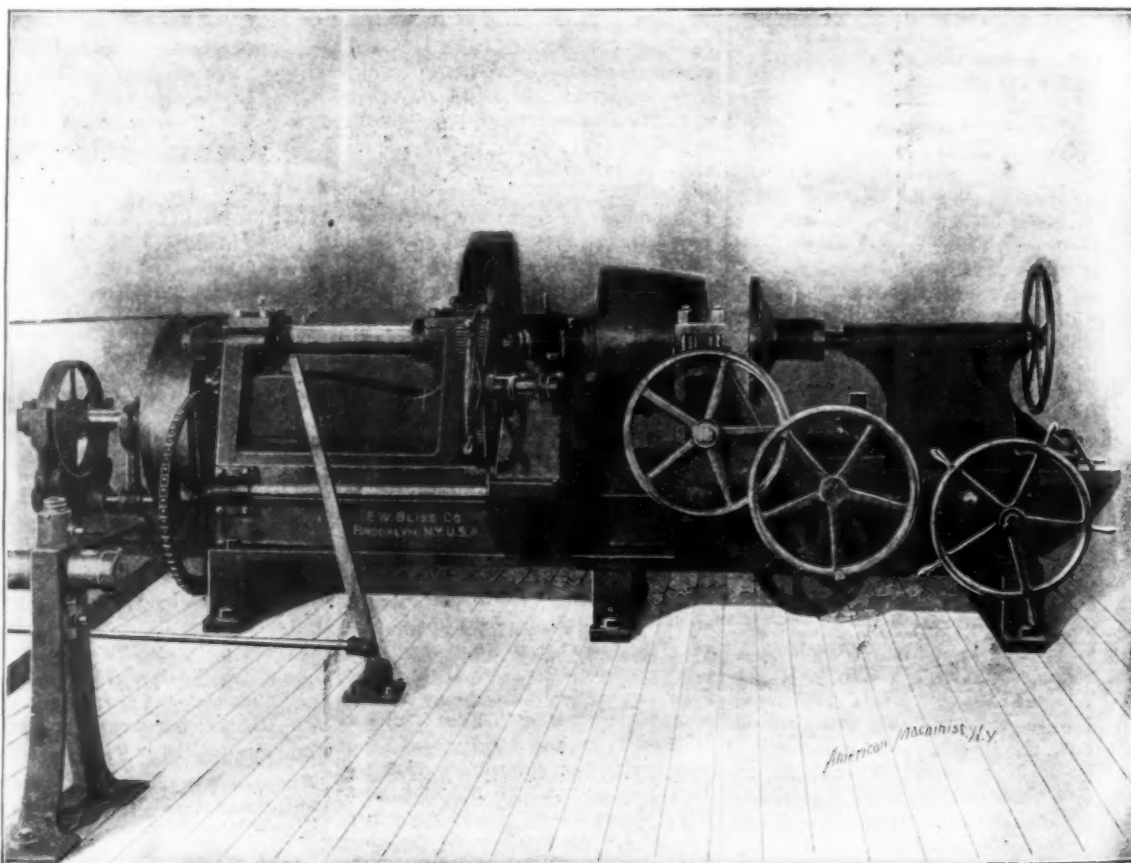
and is designed for facing the ends of work, either hardened or soft. The spindle is of steel and runs in bronze boxes which are provided for compensation for wear.

An emery cylinder wheel eight inches in diameter, with one-and-one-quarter-inch thickness of rim, is secured to the



FACE GRINDING MACHINE.

spindle and held firmly by means of a cylinder chuck, the chuck having a threaded disc operated by a spanner to force out the wheel as worn. Provision is made for connecting the machine with an exhaust fan for withdrawing the dust.



A NEW "BLISS" SPINNING LATHE.

petroleum barrels of sheet steel, which has just been completed for a French company by the E. W. Bliss Co., of 137 Plymouth street, Brooklyn, N. Y.

The principal features of this spinning lathe is that the burnishing roll is not brought to bear on the work by the operator, but that it follows the shape of the work automatically. Therefore, no compound rest is employed, but an ordinary

of presses, dies and special machinery for automatically working sheet metal. The company will be pleased to correspond with anyone interested.

## Face Grinding Machine.

The machine described in this article is manufactured by the Morse Twist Drill & Machine Co., of New Bedford, Mass.

The travel of the worktable is automatic and can be adjusted for work of any size to three inches diameter.

The countershaft has self-oiling hangers, tight and loose pulleys six inches diameter for two-and-one-half-inch belt, and should run about 580 revolutions per minute. The floor space required for this machine is but 18x24 inches. Apply to the manufacturer for further particulars.



## PHOSPHATES.

## Phosphate Markets.

Office Manufacturers' Record,  
Baltimore, Md., May 12.

The local trade in phosphate rock has been of better volume during the week, and, with other fertilizer ingredients showing a firmer tone, prices are very steady and in certain cases higher. From points of production the reports are very satisfactory, especially from Tennessee, where the development of deposits is being vigorously pushed. It is stated that the Tennessee mines shipped over 25,000 tons of phosphate rock during April, prices having slowly advanced during the past thirty days from \$1.40 to \$1.60 per ton f. o. b. at mines and the demand still heavy. In South Carolina and Florida shipments of rock have not been as heavy as usual on account of scarcity of tonnage and risk of capture by the Spanish fleet. The situation at the moment, however, is more encouraging, and it is expected that very shortly vessels will be offering more freely. Stocks at the mines in Florida and South Carolina are not excessive, and the domestic demand, as well as foreign, would be quickened by a lower rate schedule both by rail and water. The following charters were reported last week in New York: Schooner Fannie Reiche, 440 tons, from Charleston to Perryville with phosphate rock at \$2.50; schooner T. H. Tillyer, 568 tons, from Charleston to Elizabethport with phosphate rock at \$3, and schooner E. J. Berwind, 1024 tons, Baltimore to Key West with coal at \$2 and back from Port Royal with phosphate rock at \$2.10.

## Fertilizer Ingredients.

The present high price of cereals has caused a very strong market for ammoniates, and the demand from fertilizer manufacturers is active, with higher prices for raw material. Eastern buyers are purchasing largely in the open market, and the demand from Southern sources is fairly active. Tankage 9 and 20 is quoted at \$1.80 and 10, based on \$2.70 rate from Chicago, and \$1.97½ and 10, based on \$4.40 rate from the same point. Sulphate of ammonia is quiet and steady. Nitrate of soda is firm and higher.

The following table represents the prices current at this date:

Sulphate of ammonia (gas)	\$2 45 @	—
Nitrate of soda	3 40 @	3 50
Blood	1 72½ @	1 77½
Hoof meal	1 65 @	—
Azotine (beef)	1 95 @	2 00
Azotine (pork)	1 95 @	2 00
Tankage (concentrated)	1 67½ @	—
Tankage (9 and 20)	1 80 @	10
Tankage (7 and 30)	15 00 @	15 50
Fish (dry)	20 00 @	—
Fish (acid)	12 00 @	—

## Phosphate and Fertilizer Notes.

The only shipment of Florida phosphate rock from the port of Savannah in April was 1567 tons by steamship Inverness for Stettin, Germany, shipped by J. Carstens.

The schooner Adele Thackera cleared from Charleston, S. C., last week with 900 tons of phosphate rock. The total coastwise exports of phosphate rock from September 1, 1897, to May 6, 1898, amounted to 71,444 tons, against 66,526 tons for the corresponding period last year.

The movement in phosphate rock from the port of Fernandina, Fla., during April was not one of activity, shipments amounting to 10,410 tons. The following steamers cleared with full cargoes: Steamer King Arthur for Glasgow with 1352 tons, and steamer Peter Berg for Aarhus with 2214 tons, both from the Dunnellon Phosphate Co.; steamer Linwood for Rotterdam with 2400 tons from A. J. Ford; steamer Coquet for Stettin

with 2133 tons from C. R. Chozal, and steamer Airdrishaig for Rotterdam with 2311 tons from J. Carstens. The charters for May loading indicate a very active month in phosphate shipments, which are estimated at 25,000 tons. The following charters have been recorded up to the 6th inst.: J. Carstens will load steamers Aecia and Birchton; H. A. Ford, steamers Elfie and Symra; C. E. Abson, steamer Hilda; J. Buttgenbach & Co., steamer Zoe, and Dunnellon Phosphate Co., steamers Joseph Turpie and Packington.

## Iron Markets.

Cincinnati, O., May 7.

The activity noted last week has been maintained in a remarkable degree. Many of the furnaces are entirely unable to meet the demand for certain grades, and all the furnaces making foundry and mill grades for the trade are satisfied with the number and volume of the orders.

The demand has been so large and comprehensive as to variety that a great deal of warrant iron, some outside lots and off grades have been taken off the market, clearing the way for regular supply of standard grades of furnace irons. In consequence of the large business prevailing, prices are firmer and there is not that disposition to cut nor the occasion for it that prevailed in the near past.

We quote for cash f. o. b. Cincinnati:

Southern coke, No. 1 foundry	\$9 75 @	\$10 00
Southern coke, No. 2 foundry	9 50 @	9 75
Southern coke, No. 3 foundry	9 25 @	9 45
Southern coke, No. 4 & G. F.	8 75 @	9 00
Southern coke, mottled	8 75 @	9 00
Southern coke, No. 1 soft	9 75 @	10 00
Southern coke, No. 2 soft	9 50 @	9 75
Belfont coke, No. 1, Lake Sup.	11 00 @	11 50
Belfont coke, No. 2, Lake Sup.	10 50 @	10 75
Hanging Rock charcoal, No. 1	14 50 @	15 50
Tennessee charcoal, No. 1	12 50 @	13 00
Jackson Co. silvery No. 1	12 00 @	12 50
Standard Georgia car-wheel	14 25 @	15 00

New York, N. Y., May 7.

Evidence accumulates that the unfavorable effects of war have been overdiscounted, so far as pig iron is concerned. The very largest buyers, who study conditions most closely, evince their belief in this by placing contracts of large tonnage for future deliveries. Thus in the midst of a period of general dullness and uncertainty we see the largest business of the year. With leading pig-iron dealers April proved to be the month of heaviest tonnage since the summer of 1897. What always follows closely on buying by the big consumers is the entrance of the rank and file into the market, and that is what may now reasonably be looked for. The largest interest in Birmingham, which sets the pace for foundry irons throughout the country, has now on its books over 250,000 tons unfilled orders, with total stocks on hand about one-tenth that figure. As further large deals are pending, there is some ground for belief that the market will soon work into general activity and advancing prices.

We quote for cash f. o. b. New York:

No. 1 X standard Alabama	\$10 75 @	11 00
No. 2 X standard Alabama	10 50 @	10 75
No. 1 X lake ore coke iron	12 50 @	12 75
No. 2 lake ore coke iron	12 00 @	12 25
Niagara coke malleable	12 00 @	12 25
Rome (Ga.) charcoal	15 00 @	15 50
Hinkle L. S. charcoal	13 00 @	13 50

Philadelphia, Pa., May 7.

There is a more active market to report this week, and sales have been made ranging from carload orders up to 10,000 tons. The heaviest buying comes from consumers of chilled basic pig iron, and the indications all point to a good legitimate demand which may send prices upward to at least a living basis.

We quote for cash f. o. b. Philadelphia docks:

No. 1 X standard Alabama	— @	\$11 00
No. 2 X standard Alabama	— @	10 55
No. 1 X lake ore coke iron	— @	11 75
No. 2 X lake ore coke iron	— @	11 25
Lake Superior charcoal	— @	13 25
Standard Georgia C. C.	— @	15 50

ROGERS, BROWN & CO.

## TRADE NOTES.

**Automatic Stoker.**—The American Stoker Co., formerly located in the Garfield Building, Brooklyn, N. Y., now occupies offices in the Washington Life Building, New York city. The American stoker is deservedly popular and steam users should investigate its merits.

**Engineers and Architects.**—Messrs. Howe & Olney have recently opened an office at Spartanburg, S. C., as civil engineers and architects, and they desire to receive catalogues and other printed data from manufacturers of machinery, tools, supplies, etc., utilized in their business.

**Stillwell-Bierce & Smith-Valle Co.**—The Stillwell-Bierce & Smith-Valle Co., of Dayton, O., engineer and contractor for steam and other power-pumping plants, hydraulic machinery, etc., has removed its New York city office to 141 Broadway, and its Chicago office to 311 Dearborn street.

**Ball Engines.**—The Paxton Hotel, of Omaha, Neb., will have an electric-light plant, a "Ball" engine, built by the Ball Engine Co., Erie, Pa., supplying the power. A direct-connected electric-light plant in the Exchange Building, Boston, Mass., will also be supplied with a "Ball" engine.

**Ice Machinery.**—The Fred W. Wolf Co., of Chicago, Ill., builder of ice-manufacturing machinery, has received the contract to equip a complete ten-ton plant for Messrs. E. C. Anderson & Co., of Hopkinsville, Ky. The plant will be located at Madisonville, and will be of the Lunde pattern, to be in operation by July 7.

**Double-lip Plumbago Crucibles.**—Mr. Henry L. Schwarzenberg, dealer in iron, steel scrap, old metals, cotton waste and lubricating oils, office, Room 407, Cuyahoga Building, Cleveland, O., has been appointed general sales agent for the R. B. Seidel's (Philadelphia Black Lead Crucible Works) superior double-lip plumbago crucibles. Mr. Schwarzenberg announces that he is quoting satisfactory prices to the trade, and would be pleased to hear from crucible users.

**Cotton-mill Machinery.**—The Warren Manufacturing Co., of Warren, R. I., has placed a repeat order for revolving flat cards with the Saco & Pettee Machine Shops, of Newton Upper Falls, Mass. This mill now has between 100 and 200 Pettee cards. The Saco & Pettee Machine Shops has also received a repeat order for revolving flat cards from Messrs. Robert Beatty & Co., of Philadelphia, Pa., and from the Spartan Mills, Spartanburg, S. C., an additional order for spinning.

**American Tools for Europe.**—The American Tool Works Co., of Cincinnati, O., reports that the demand for machinery in foreign countries is still steady, notwithstanding the fact that hostilities between this country and Spain have begun. In the past week the company has received a number of orders through the London office, among them being one from J. Stone & Co., of Deptford, England, for a line of brass-working machinery, including valve-milling machines, monitor lathes and cock grinders; also an order from Furnival & Co., of Reddish, England, for a number of standard engines lathes, drill presses and shapers.

**Railroad for Sale.**—One of the most favorable opportunities for railroad development is that being offered by Messrs. Hyde Bros. & Co., of 902 Lewis Building, Pittsburg, Pa. The firm offers for sale a standard-gauge road, with 60-pound steel rails barely used, together with franchises, rights of way, etc., located in Texas, but the road will be sold to a good purchaser at such a figure as would warrant the tearing up of the road and the using of the material. The road is said to be particularly valuable to anyone building or extending into Mexico near the Texas border, or in Texas along the Mexican border. Parties interested, or likely to be, are invited to correspond with Messrs. Hyde Bros. & Co., as above.

"The benefits of painted factory walls, briefly stated, are as follows: It inspires confidence and respect; it makes the place more attractive and increases business; it increases the amount of light; enables the workmen to do better work; cheers the soul and arouses the ambition of the workmen; gives the workman a longer lease on his eyesight; improves the sanitary conditions and destroys germs of disease; lessens the fire risk; increases the value of the property, and is proof of the owner's good judgment." The above are given by Messrs. Alden Speare's Sons & Co., of Boston Mass.,

as reasons why all users of paints should investigate the merits of their well-known "Asbestine Cold-water" brand.

**Sprague Electrical Machinery.**—The managers of the elevated railroad in Chicago which recently displaced steam for electricity (Sprague multiple-unit system), report remarkably good reforms which the new system allows it to make. Schedule time of thirty-eight minutes has been reduced to thirty minutes, and they will save in transportation wages alone more than the total depreciation, and will make the old steam-service mileage with 15 per cent. fewer cars. Strains on the elevated structure are also reported as considerably reduced. The Sprague Electric Co. has also furnished "Lundell" motors for a number of machines being shipped to a Germany electrotyping and stereotyping establishment. Another contract received by the Sprague Electric Co. (of New York city) is to furnish seven worm-gear drum elevator machines for the Government Printing House at Washington. The company has also shipped several direct-connected generating sets and "Lundell" fan motors to India and Japan.

**Equipping Metropolitan Street Railway System with Air Motors.**—The Metropolitan Street Railway Co. of New York has contracted with the American Air Power Co. for the equipment of two lines with the Hoadley-Knight air motor; contract calls for complete equipment, including twenty cars. The air compressor for which order has been placed is of 1000-horse-power capacity, and is of the Ingersoll-Sergeant four-stage single-acting type, provided with intercoolers between each pair of cylinders, and a final cooler after the fourth stage cylinder. The air cylinders are to be vertical, and will be set underneath the engine, which is a vertical cross-compound condensing Reynolds Corliss engine, built by the E. P. Allis Co. Air will be compressed to a suitable pressure and will charge the cylinders or bottles used in the cars. The American Air Power Co., which was formed by the combination of the Hoadley-Knight and Hardie companies, has a capital of \$7,000,000. Its president is A. A. McLeod, formerly president of the Reading Railway and the Boston & Maine, and its directors are William L. Elkins, Thomas Dolan, Thomas Ryan, Joseph H. Hoadley and A. A. McLeod.

## TRADE LITERATURE.

**Texas Bankers.**—Messrs. R. T. Ervin & Co., of Wharton, Texas, bankers and commission merchants, are issuing an acceptable office-desk blotter.

**Stoker Catalogue.**—The American Stoker Co., Washington Life Building, New York city, is preparing a new catalogue which will be a veritable work of art and contain a fund of information for steam users. It will be elegantly illustrated with views of notable installations of the American stoker. Copies may be obtained upon application.

**Willard Boiler Pamphlet.**—A pamphlet has been issued descriptive and illustrative of the "Willard" water-tube marine boiler for steam yachts and launches. This boiler is built strictly in accordance with government requirements, and is light, safe and economical. Messrs. Charles P. Willard & Co., of 13 and 15 Canal street, Chicago, makers of this boiler, have had long experience in the construction of boilers of this class, and they believe that in the "Willard" they have produced one that is not excelled, if equaled, by any other on the market. Send for particulars.

**Contractors' and Quarrymen's Machinery.**—One of the most complete catalogues of the year in its line is that of the John F. Byers Machine Co., of Ravenna, O. This company has appreciated some marked difficulties under which contractors and quarrymen frequently labor, and in order to overcome them has proposed to supply the latest and best style of hoisting machinery and other apparatus used in the lines of business referred to. The frequent consultations which the Byers Company has had on this subject has caused it to make it a specialty, and it is prepared to manufacture and furnish a varied line of the class of machinery in question. The John F. Byers Machine Co.'s product includes portable and semi-portable steam hoisting engines, geared locomotives, derrick cars, derrick irons, hand-powers, blocks and sheaves for contractors and quarrymen, and the company also deals in contractors' and builders' supplies. The new catalogue is known as Catalogue E, and contractors and others interested are invited to send for a copy, as it is ready for distribution.

# CONSTRUCTION DEPARTMENT.

**THE MANUFACTURERS' RECORD** seeks to verify every item reported in its Construction Department by a full investigation and complete correspondence with everyone interested. But it is often impossible to do this before the item must be printed, or else lose its value as news. In such cases the statements are always made as "rumored" or "reported," and not as positive items of news. If our readers will note these points they will see the necessity of the discrimination, and they will avoid accepting as a certainty matters that we explicitly state are "reports" or "rumors" only. We are always glad to have our attention called to any errors that may occur.

\*Means machinery, proposals or supplies are wanted, particulars of which will be found under head of "Machinery Wanted."

In correspondence relating to matters reported in this paper, it will be of advantage to all concerned if it is stated that the information was gained from the Manufacturers' Record.

It often occurs that the organization of a new company in any town is not known by the postmaster, and hence letters addressed to the company are returned marked "not known." The Manufacturers' Record reports the first organization of all companies, and our readers, in seeking to get into communication with them, should be very careful in deciding how to address them, and even then they must expect the return of some letters, because of the lack of knowledge on the part of postmasters of all new companies. Criticisms and complaints are invited, as they will the better enable us to guard against errors.

## ALABAMA.

Anniston—Electric Plant.—The Anniston Electric Co. is considering the sale of its property or the increase of capital and reorganization and the purchase of additional property.

Birmingham—Steel Plant.—A dispatch from New York city states that Nat. Baxter and A. M. Shook, of the Tennessee Coal, Iron & Railway Co., of Birmingham, have completed arrangements for the floating of \$1,000,000 in bonds, the proceeds of which are to be expended in the erection of the steel plant which has been under consideration for several years.

Gadsden—Water Works.—The city council has directed the mayor to negotiate for the purpose of authorizing the construction of water-works system. Address Mr. Elliott, mayor.

Gualey—Woodworking Factory.—W. T. Roberts has added wooden-faucet machinery to his factory.

## FLORIDA.

Marianna—Water Works.—The city has definitely decided to contract for the construction of water works. Address George Farley, member of council.\*

Register—Saw Mill.—T. L. Steel, of Fort White, Fla., may build a saw mill at Register.

Tampa—Cigar Factory.—Incorporated: The Bee Cigar Co., capital \$10,000, to buy and sell tobacco, manufacture and sell cigars and cigarettes, etc.; G. L. Stephens, S. L. Biglow and George T. Chamberlain are the incorporators. Address the last named.

Tampa—Tobacco Manufacturing and Curing.—Incorporated: The Central Curing & Packing Co., with \$25,000 capital, to grow leaf tobacco, supply seed to planters, buy and sell leaf tobacco, cure tobacco and manufacture cigars and cigarettes. The incorporators are Louis F. d'Estumpe, De Forest Fairchild and Myron E. Gillett. Address the last named.

West Palm Beach—Cannery.—The Lake Worth Canning Co. has been organized recently to establish a cannery; contract for erection of building has been awarded.

## GEORGIA.

Barnesville—Sign Factory.—R. G. Matthews, S. B. Burr, Jr., and Alva Matthews have established recently a sign factory.

Cedartown—Slate Quarries.—The Piedmont Slate Co. is preparing to increase the capacity of its quarries and plant.

Cedartown—Cotton Ginnery.—The Cedartown Cotton Manufacturing Co. has in contemplation the erection of a plant, with press, etc.\*

Easton—Telephone Exchange.—E. H. Davis has obtained franchise for telephone exchange and system.

Macon—Electric Light Plant.—The Macon & Indian Spring Railroad Co. has purchased the Macon electric plant and will improve same, adding a 1000-horse-power engine and other machinery.

Macon—Paper Mill.—J. R. Sewell, of Whitesburg, Ga., may possibly remove his paper mill to Macon.

Newman—Cotton Mill.—Regarding the proposed cotton mill, to which reference has previously been made, we are informed that the enterprise has not been definitely shaped, nor will it likely be until the conclusion of the Spanish-American war. The R. D. Cole Manufacturing Co. (by M. F. Cole) is authority for this statement.

Union Point—Manufacture.—The Union Manufacturing Co. will increase its output.

White Hall—Cotton Mill.—The Georgia Manufacturing Co. contradicts the report that it intends to build another mill. The report was entirely an error.

## KENTUCKY.

Crab Orchard—Telephone System.—Incorporated: The Crab Orchard, Stanford & Mount Vernon Telephone Co., capital \$1000, by Curtis Gover, J. M. Bruce, A. E. Albright, A. H. Bostin and James Moret.

Lawrenceburg—Electric Light Plant.—The proposed electric-light plant will doubtless be built soon; J. W. Waterfill, clerk of council.

Madisonville—Ice Factory.—E. C. Anderson & Co., of Hopkinsville, Ky., have contracted for the erection of the ice factory noted last week, capacity to be ten tons daily; contract for the equipment of machinery has been awarded to the Fred W. Wolf Co., of Chicago, Ill. The Spring Lake Ice Co. will be formed to operate the ice factory.\*

Maysville—Harness Factory.—The Keith-Schroeder Harness Co. has leased new building for its harness factory and will extend operations.

Sulphur—Electric Light Plant.—James A. Glidden contemplates the installation of a small electric-lighting plant.

## LOUISIANA.

Alexandria—Woodworking Factory.—The Alexandria Lumber Co. will probably put in a woodworking plant.

Amite City—Ice Factory.—The Amite City Improvement & Ice Manufacturing Co. has awarded contract for the erection of its proposed four-ton ice factory.

Crowley—Irrigation System.—Winston Jones, of Mobile, Ala., will construct an irrigation system on his lands near Crowley to irrigate 500 acres of rice fields.

## MARYLAND.

Baltimore—Stove Works.—Incorporated: The Universal Heating & Manufacturing Co., for making steam boilers and gas stoves, by William Hall, Leonidas G. Turner, Christopher Lauterbach and John N. Pickering, of Baltimore, and Phillip A. Brugh, of Washington county, Maryland. The capital stock is \$5000. Address John N. Pickering.

Baltimore—Telephone System.—The Baltimore & Bel Air Telephone Co. has been incorporated, with capital stock of \$5000, for the purpose of constructing a telephone system, by Alexander S. Bell, Harold Walsh, John M. Griffith, H. J. Hollingsworth, J. Alexis Shriver and Thos. R. Clendinen. Address the last named at Baltimore.

Baltimore—Grocery Company.—The Cassidy Co., dealers in groceries and feed, has been incorporated by John L. James Jr., Jos. J. Katherine M. and Margaret Cassidy, with a capital stock of \$15,000.

Laurel—Water Works.—The Laurel Water Co. has been incorporated by Joseph M.

Cone, J. Stuart McDonald and W. S. Minch, of Baltimore.

## MISSISSIPPI.

Carrollton—Water Works.—The city contemplates the drilling of an artesian well; W. H. Hafner, mayor.\*

Jackson—Bridge.—The city council has appointed a committee of four to consult with the engineer as to the exact cost of building a new iron bridge over Town creek on Capitol street. The idea is to build a bridge that is as wide as the street, 100 feet, the estimated cost of which, with the removal of the old bridge to another street, is about \$10,000. Address the mayor.

Magnolia—Bridge.—The county will contract for the construction of a bridge. Address W. C. Vaught, clerk.\*

## MISSOURI.

Armstrong—Flour Mill.—John B. Hurt will erect a flour mill and two steel storage tanks of 20,000 bushels capacity each.

Belgrade—Flour Mill.—J. T. Terrill has purchased and will remodel and improve the Belgrade Roller Flour Mill.

Joplin—Mining Company.—The Phoenix-Vernon Lead & Zinc Co. has been incorporated, capital stock \$350,000, by A. F. Dexter, S. F. Norton, Thomas P. Steers and others.

Kansas City—Telephone System.—The Tri-State Telephone Co., capital stock \$200,000, has been incorporated by E. Y. Phelps, C. H. Francis, James M. Girdner and others.

Kansas City—Fur Company.—The Van Dyke Fur Co., capital stock \$2000, has been incorporated by H. E. Van Dyke, Cordelia Womack and Thomas Swearingen.

St. Louis—Woodenware Factory.—The Samuel Cupples Woodenware Co. will probably increase its capital stock from \$1,000,000 to \$2,000,000 and make extensive additions to its plant and business.

St. Louis—Stock Yards.—Incorporated: The Missouri Stock Yards Co., capital stock \$180,000, by Charles W. Scudder, Daniel Catlin, Ephron Catlin, Joseph H. Sheets, Charles Parsons, William Maffitt and Charles C. Maffitt.

St. Louis—Filter-plate Company.—Incorporated: The Wormser Filter Plate Co., capital stock \$25,000, by H. C. Stifel, F. J. Forster, Otto F. Stifel and Frank R. O'Neill.

St. Louis—Steam Heating.—Incorporated: The St. Louis Home Steam Heating Co., capital stock \$5000, by W. J. Holbrook, H. H. Hess, W. A. Thomas and others.

## NORTH CAROLINA.

Bessemer City—Telephone Line.—The Bessemer Telephone Co. has been incorporated, with capital stock of \$750, to erect and maintain a telephone exchange in Bessemer City and such towns in the State as it may choose. The incorporators are D. A. Garrison, B. R. Williford, J. H. Wilkins and S. J. Durham.

Camden—Telephone System.—E. Mitchell, P. G. Morissette, H. T. Greenleaf, R. L. Forbes, C. S. Sawyer, J. A. McKinney, M. R. Hughes and others have incorporated the Camden Telephone Co., with capital stock of \$20,000, to construct telephone system, etc.

Camden—Telephone Line.—E. Mitchell and others have incorporated the Camden Telephone Co., with a capital stock of \$5000, to construct telephone lines, etc.

Goldsboro—Sewerage.—The city has voted an issuance of \$30,000 in bonds for the construction of a sewerage system. Address the mayor.

Gumberry—Saw Mill.—F. Kell is rebuilding his burned saw mill.\*

High Point—Foundry and Machine Works.—The Guilford Foundry and Machine Works has commenced installing its equipment of machinery.

Mountain Creek—Flour and Meal Mills.—The Mountaineer Milling Co., with capital stock of \$2750, for manufacturing wheat and other grain into flour and meal. The incorporators are J. A. Sherrill, J. W. Seizer, P. D. Drum, R. L. Drum, H. H. Caldwell, J. C. Barker and W. A. Drum.

Mount Carmel—Flour Mill.—Incorporated: The Mount Carmel Flouring Mill Co., with capital stock of \$2750.

North Carolina—Distillery.—James T. Tyndall, of New York city (address care of Geo. W. Lederer Co., Broadway and 39th street), writes regarding the proposed distillery to be erected in North Carolina, reported last week. It is proposed to erect a steam distillery in North Carolina or Georgia to have

daily capacity of from 4000 to 10,000 gallons, making exclusively corn whiskey. Several hundred thousand dollars of English capital will be enlisted in the enterprise, but probably no definite steps will be taken in the matter until the Spanish-American war is at an end. Mr. Tyndall is ready to receive information and estimates on cost of complete equipments for distilling corn whiskey if presented in writing only, not otherwise.\*

Southern Pines—Grape Company.—Chartered: The Niagara Grape & Fruit Co., capital \$25,000, by P. A. Stebbins, of Pennsylvania; W. P. Swett, of Southern Pines, and Charles E. Mahon, of New York. Address W. P. Swett.

## SOUTH CAROLINA.

Charleston—Water Works.—The Charleston Light & Water Co. has been organized by the election of William E. Huger, president, and H. F. Bremer, secretary-treasurer. The promoters of this company have obtained recently a State charter and will immediately arrange for the construction of a water-supply system. Address H. F. Bremer, secretary.

Duncan—Cotton Mill.—The erection of a cotton mill is talked of. A. B. Groce is said to be interested.

## TENNESSEE.

Bristol—Iron Furnace.—Stephen Noble intends to put in blast the Bristol furnace which he has leased.

Columbia—Electric Lighting.—The city is asking for bids on lighting its streets and buildings; E. Yoest, mayor.\*

Jackson—Woodworking Factory.—Weiss & Lesh (saw manufacturers) and the American Skewer Co. (skewer manufacturer) have consolidated as the Weiss & Lesh Manufacturing Co. The capacity of the two factories will be materially increased and four new plants will be established at different points throughout the South.

Rogersville—Water Works.—The city will vote May 18 on the issuance of bonds for \$18,000 to build water works. Address H. J. Nelson, mayor.

Sevierville—Road-construction Contract.—Contract has been awarded to M. J. Condon, of Knoxville, Tenn., for the construction of a five-mile turnpike to cost \$37,000.

Sparta—Telephone Line.—The Gainesboro Telephone Co. is about to commence the construction of its telephone line from Sparta to McMinnville.

Springfield—Saw Mill.—England Bros. are erecting a saw mill.

## TEXAS.

Alvin—Telephone Line.—The Alvin & Angleton Telephone Co. has franchise to construct a telephone line from Alvin to Angleton.

Brenham—Telephone Line.—The Brenham & Shelby Telephone Co., recently noted as chartered, has organized with W. C. Henderson, president, and E. H. Eversberg, secretary. Address the last named.

Cleburne—Railroad Shops.—Contract for erection of shops buildings for the Gulf, Colorado & Santa Fe Railroad has been awarded to Hoshour & Evans; buildings to include 340x120-foot stone machine shop, 340x90-foot wood and iron boiler shop, 180x90-foot stone paint shop, 180x90-foot stone carshop, 88x40-foot iron engine and boiler house, 22x40-foot wooden coalhouse, 40x95-foot stone office building, 200x40-foot wood and iron storehouse, 25x40-foot iron fire-department building, 16x100-foot iron water tower, 30x60-foot stone oilhouse, 20x40-foot iron electrical room, 70x30-foot stone transfer pits, 100x60x9-foot round stack of brick, 100x40-foot covered platform, 30x60-foot iron tool-house; total cost of the structures will exceed \$100,000.

Greenville—Woodworking Factory.—W. O. Stamps & Co. have purchased the Merritt planing mill and will convert it into a woodworking factory.

Houston—Mercantile.—The Bering-Cortes Hardware Co., capital stock \$100,000, has been incorporated by J. C. Bering, H. W. Cortes and J. H. Schunacher.

Johnson City—Telephone Company.—The Martin Telephone Co., capital stock \$10,000, has been incorporated by David Martin, J. W. Shugart and A. G. Perry.

Taylor—Cotton Compress.—I. H. Kempner has purchased for \$31,000 the Taylor compress. The plant will be overhauled and thoroughly repaired and rebuilt.



## VIRGINIA.

Alexandria—Electric Company.—Incorporated: The Victor Electric Co., for the purchase, sale, lease, etc., of all electric devices, lamps, etc.; capital stock \$25,000; Cloude M. Thoulless, of Newark, N. J., president.

Dillwyn—Flour Mill.—The White-Hall Co. has in contemplation the erection of a 40-barrel roller process flour mill.

Petersburg—Electric Plant.—The Upper Appomattox Co. is constructing a canal for the proposed new electric powerhouse.

Richmond—Conduit System.—Mr. Thompson, superintendent of city fire department, has received instructions to extend the underground conduit system.

Richmond—Steam Bakery.—Incorporated: The Richmond Biscuit Co., which has established a large plant. The incorporators are Hampton Fleming, president; W. T. Hancock, vice-president; R. E. Priddy, secretary and treasurer; A. R. Hargrave, manager. These, with Charles B. Lefew, form the directors. Address the manager.

Stuart—Tobacco Factory.—A stock company is being formed for the purpose of establishing a tobacco factory; C. E. Smith can be addressed.

## WEST VIRGINIA.

Charleston—Telephone Lines.—The Mountain State Telephone & Telegraph Co., capital limited to \$50,000, has been incorporated by G. V. Forman, H. A. Forman, H. V. Thomas, of Buffalo, N. Y.; J. W. Penhale and C. B. Couch, of Charleston, W. Va. Address the last-named.

Charleston—Electric Company.—Incorporated: The Hogan Electric Co., capital limited to \$100,000, by Alf Brittenham, E. A. Reiklin, A. G. Vickers, of Charleston; John E. Laughlin and G. W. Arbogast, of Clay C. H. Address Alf Brittenham.

Charleston—Heading and Stave Factory.—Incorporated: The Gauley Heading & Stave Co., with an authorized capital of \$50,000, by William Dickinson, John L. Dickinson, John Wehrle, John C. Malone and C. G. Peyton.

Charlestown—Mining and Development.—Chartered: The West Virginia Mining & Development Co., for the purpose of operating in the State of Oregon and elsewhere; principal place of business, Charlestown. The subscribed capital is \$3000; capital limited to \$1,000,000; incorporators, Edward Garlin, B. K. Collier, John A. Fitzgibbon, W. Craib and John B. Laber, all of San Francisco, Cal. Address the incorporators.

Elkins—Coal and Coke Company.—Incorporated: The Washington Coal & Coke Co., subscribed capital \$20,000, capital limited to \$200,000, by H. G. Davis, J. T. Davis, W. H. Bowen, W. J. Armstrong, of Elkins, and C. M. Hendley, of Washington, D. C. Address H. G. Davis.

Elkins—Timber-land Development.—The Valley Co., for the development of timber lands, subscribed capital \$10,000, limited to \$100,000, has been incorporated by H. G. Davis, J. T. Davis, of Elkins; W. C. Ward and E. Hutton, of Huttonsville; C. M. Hendley, of Washington, D. C. Address H. G. Davis.

Sistersville—Glass Factory.—Ralph Broadwater and Charles Thistle continue their endeavors to organize a company to build a glass factory.

Wheeling—Pottery.—The Davison Pottery Co. has been organized and granted a charter, with Thomas Davison, president; W. O. Ambrecht, secretary-treasurer. These, with Frank Craddock, Charles E. Jones and Conrad Schmiedmuller, are the directors. The company will enlarge and improve the Davison pottery, building a new kiln 15x16 feet in size, to increase the present capacity ten times.

## BURNED.

Atlanta, Ga.—Hopper Alexander's residence; loss \$10,000.

Baltimore, Md.—The Baltimore Roofing Coal Tar Co.'s factory; loss \$5000 damages.

Chase City, Va.—C. C. Reddick's saw and grist mills.

Chase City, Va.—C. C. Reddick's saw mill; loss \$3000.

Columbus, Ga.—Jones & Pollard's planing mills; loss \$30,000.

Excelsior Springs, Mo.—The Elms Hotel, Colonel Ettenson, proprietor; loss \$100,000.

Fort Smith, Ark.—Fort Smith Lumber Co.'s plant; loss \$12,000.

Helena, Ark.—W. D. Reeves's saw and planing mills and dry-kilns; loss \$100,000.

Henderson, Texas.—H. Oberthier's cotton gin.

Jeanerette, La.—Jeanerette Lumber & Shingle Co.'s plant; loss \$60,000.

Lake Charles, La.—The car shops of the Kansas City, Watkins & Gulf Railroad; loss \$75,000.

Lineweaver & Co.'s can manufactory; damaged to extent of \$16,000.

Maysville, Ky.—Saw mill of O. T. Soper; loss \$10,000.

Plaquemine, La.—Dry-kiln of L. G. Nichols; loss \$4000.

Rowesville, S. C.—John F. Simmons's spoke and handle factory; loss \$5000.

## BUILDING NOTES.

Alken, S. C.—Hotel.—There is talk of the erection of a hotel, a Mr. Olney, civil engineer, of Charleston, S. C., being mentioned. In connection with Ernest Flagg, of New York.

Anderson, S. C.—Warehouse.—C. M. Guset has prepared plans and specifications for a machinery warehouse for the Sullivan Hardware Co.; structure to be 96x105 feet, wood frame, metal roofing and siding.

Augusta, Ga.—Residences.—J. B. White has awarded contract to A. G. Stamford for the erection of forty cottages, to cost \$50,000.

Baltimore, Md.—Dwellings.—Edward J. Gallagher has permit to erect ten two-story brick dwellings; J. E. Lafferty is preparing plans for two-story bank building for the City Savings Bank.

Baltimore, Md.—Church, etc.—Contract awarded to Henry Rippel at \$8000 for improvements to Germania Maennerchor Building; J. Appleton Wilson has completed plans of 65x70-foot church for Bohemian Presbyterian Association to cost \$6000.

Baltimore, Md.—Dwellings.—Alfred Mason is preparing plans for clubhouse for Baltimore Lodge of Elks. E. M. Noel has contract to rebuild and improve Franklin Street M. E. Church building. Donald Dunlop will erect \$4000 cottage.

Beverly, W. Va.—Courthouse.—J. P. Con, of Unlontown, Pa., has contract at \$20,945 for the erection of Randolph county courthouse.

Brenham, Texas—Church.—The Church of the Disciples of Christ will erect a structure for public worship.

Charleston, S. C.—School.—Rutledge Holmes has completed plans for the proposed building for the Charleston Industrial School; structure to be two stories high, 82x61 feet, containing fourteen rooms. Address president of Charleston Industrial School.

Chattanooga, Tenn.—Residences.—J. F. Johnston will erect two \$6500 residences, and M. Rosenheim a \$3000 residence.

Cleburne, Texas—Shops.—Hoshour & Evans have contract to erect the shops buildings for the Gulf, Colorado & Santa Fe Railroad.

Dalton, Ga.—Jail.—Contract for erection of jail has been awarded for building to Golden & Buggett, of Harrison, Ga., and for steel and iron work to Portsmouth (O.) Structural Steel & Iron Co.; structure will cost \$7450.

Frederick, Md.—Dwellings.—Thomas C. Kennedy, of Baltimore, is preparing plans for a \$6000 dwelling for J. Roger McSherry; for a \$5000 dwelling for C. O. Keely, of Frederick, and \$4000 dwellings for Charles W. Ross and Henry W. Williams, of Frederick.

Griffin, Ga.—Residence.—John W. Mangham will erect a residence.

Hagerstown, Md.—Roundhouse.—Contract for erection of roundhouse for the Western Maryland Railroad has been let to S. L. Lamkin.

Huntsville, Ala.—Synagogue.—Contract has been let for the erection of a synagogue for the Hebrew Reformed Association. Address pastor.

Huntsville, Ala.—Business Building.—Mrs. Ella Baldrige has awarded contract for erection of two-story block of brick stores.

Jasper, Ga.—Store.—Tate, Simmons & Co. have let contract to Rhyme Bros. for the erection of a two-story brick store building.

Joplin, Mo.—Business Building.—M. H. King, of Massillon, O., has awarded contract to Smith Bros., of Webb City, Mo., for the erection of a business building 50x100 feet, three stories high, baths, closets, steam heat, etc.

Joplin, Mo.—Office Building.—Architect Michaelis is completing plans for 120x150-foot office building, three stories high, to have elevators, steam or hot-air heat, etc.; Capt. E. O. Bartlett, builder.

Knoxville, Tenn.—Residence.—M. J. Condon will erect a \$2500 residence.

Lancaster, S. C.—Dwelling.—L. C. Payseur has let contract to W. B. Knight for erection of residence.

Louisville, Ky.—Reformatory.—Kentucky House of Reform will erect a new building; B. T. Conway, Lebanon, Ky., president trustees.

Lynchburg, Va.—School.—The city council has appropriated \$30,000 for the erection of a schoolhouse. Address the mayor.

Maysville, Ky.—Opera-house.—Hanaford & Son have submitted plans and specifications for the proposed opera-house. Address Wm. H. Cox for information.

Natchez, Miss.—Bank Building.—The Britton & Koontz Bank will erect an office building and is inviting bids for its construction. Plans and specifications can be seen at the bank until May 21.

New Orleans, La.—Dwellings.—L. Soards will erect \$6180 frame cottage; V. Frantz will erect double cottage to cost \$4075, and Pat Farley frame cottage to cost \$1000.

Newport, Ky.—Church.—Corpus Christi congregation will probably build a new church building.

Petersburg, Va.—Depots.—The Richmond, Petersburg & Carolina Railroad will erect a three-story passenger depot and a freight depot.

Port Lavaca, Texas—Residence.—Felix Jackson has contracted for the erection of a residence.

Rome, Ga.—Depot.—The Chattanooga, Rome & Southern Railway has let contract to the O'Neill Manufacturing Co. for erection of depot at Battlefield station.

Sedalia, Mo.—School.—Bids will be opened May 16 for the erection of a schoolhouse after plans by A. P. Crowell, at whose office they can be seen. Address G. E. Dugan et al., commissioners.

St. Louis, Mo.—Business Building.—The Reliance Real Co., John C. Hall, representative, has purchased site on which to erect a 10-story business building.

Stuart, Va.—Parsonage.—The erection of a parsonage is proposed by the Methodist church; Mrs. W. B. Rucker can be addressed.

Union Point, Ga.—Dwellings, etc.—The Union Point Improvement Co. has been organized, with capital stock of \$25,000, to build cottages, and perhaps a business building; John C. Hart, president.

Washington, D. C.—Hotel.—Alonzo O. Bliss is arranging for the construction of a family hotel or apartment-house, to be 75x106 feet, nine stories and basement, standard gray brick, architectural terra-cotta, skeleton steel frame, rotunda fifty feet square, modern kitchen equipment, etc., at a cost of \$200,000.

Washington, D. C.—Depot.—The Pennsylvania Railroad Co. intends erecting a new passenger station, to be modern in every respect, and cost probably half a million dollars; J. B. Hutchinson, general manager, Philadelphia, Pa.

Washington, D. C.—Dwellings, etc.—P. M. Dubant has prepared plans and specifications for two apartment-houses for B. H. Warner; structures to be four stories high, 38x100 feet, to have sixteen suites of six rooms and baths each. Alonzo O. Bliss intends to erect an apartment-house, probably ten stories high. James Sharp will erect a dwelling, 60-foot front.

## RAILROAD CONSTRUCTION.

## Railways.

Aberdeen, N. C.—It is reported that construction work is under way on five different sections of the extension of the Aberdeen & Asheboro Railroad being built between Troy, N. C., and Mt. Gilead. The extension will be fourteen miles long. J. R. Page, at Aberdeen, is superintendent of the company.

Bainbridge, Ga.—It is reported that the Georgia Pine Railroad Co. will complete the extension of this line to Dawson, Ga., which will be thirty-seven miles long. J. P. Williams, of Savannah, Ga., is interested.

Cary, N. C.—It is reported that final surveys are being made along the line of the Cape Fear & Northern Railroad, which, it is stated, will extend from Cary, near Raleigh, to a point on the Cape Fear river. [This line has no connection with the Raleigh & Cape Fear Railroad. It is being promoted by J. C. Angier, of Cary.—Ed.]

Clay City, Ky.—A correspondent of the Manufacturers' Record states that M. H. Courtney and others at Clay City are interested in the proposed narrow-gauge railroad between Glencairn and Compton, Ky.

Frederick, Md.—Charles C. Waters, secretary of the Frederick, Thurmont & Northern Railway Co., informs the Manufacturers' Record that it proposes to secure right

of way and make surveys at once for the line. It is to be thirty miles in length. It will extend from Frederick to the State line, and possibly to Gettysburg. L. Victor Baughman is president of the company, and Isaac S. Annan, of Emmitsburg, Md., vice-president.

Hagerstown, Md.—The Western Maryland Company, it is reported, has let a contract for constructing the line from Hagerstown to Altenwald, Pa., to J. R. Serpell & Co., of Louisville, Ky. John M. Hood, at Baltimore, is president of the railroad company.

Lincecum, La.—A correspondent of the Manufacturers' Record writes that the Alexandria Lumber Co., of Alexandria, La., is interested in a standard-gauge railroad to be built to connect timber tracts with its lumber mill at Lincecum. The line is termed the Texas & Louisiana Midland Railway.

Mansfield, Mo.—Another survey is being made along the line of the proposed St. Louis, Mansfield & Ava Southern Railroad. This line is proposed between Mansfield and Ava, Mo., and is to be built by the Ozark Construction Co., of which W. T. Loomis is engineer.

Mocksville, N. C.—The branch of the Southern Railway between Mocksville and Mooresville, twenty-seven miles, has been graded and about six miles of track laid. Frank S. Gannon, at Washington, D. C., is president of the company.

Monroe, La.—Work has begun upon the railroad from Monroe to Natchitoches, eighty-five miles. It is reported that Marcus Bernheimer, of St. Louis, has become interested in the plan and will furnish funds to carry out the enterprise. R. A. Strolwell, of the Monroe Railway & Construction Co., is promoting the line.

St. Martinsville, La.—The Southern Pacific Company has completed the grading of its branch from St. Martinsville to Arnaudville, a distance of twenty-three miles. About six miles of track have been laid. The road is along the Bayou Teche. J. T. Mall is in charge of the construction work at Houston, Texas.

St. Louis, Mo.—The Kansas & Texas Coal & Railway Co. has been formed, with \$100,000 capital, by B. F. Hobart, G. B. Leighton, E. B. Leonard and others.

Valdosta, Ga.—It is reported that the Atlantic, Valdosta & Western Railroad Co. has decided to make further extensions to this line, which will give it terminal points at Montgomery, Ala., and Jacksonville, Fla. The road is now being constructed between Valdosta and Albany, Ga., seventy miles, and is partly completed. Walter Ferguson, Jr., at 18 Wall street, New York, is president of the company.

## Street Railways.

Biloxi, Miss.—J. W. Sweetman, vice-president of the Biloxi Street Railroad Co., states that no arrangements have been made as yet to change the motive power on this line. It is about four miles long, and is operated by animal power.

## Machinery, Proposals and Supplies Wanted.

Manufacturers and others in need of machinery of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery needed we will make their wants known free of cost, and in this way secure the attention of machinery manufacturers throughout the country. The MANUFACTURERS' RECORD has received during the week the following particulars as to machinery that is wanted.

Rollers and Engines.—See "Electric-light Plant."

Bridge.—W. C. Vaught, clerk, Magnolia, Miss., will open bids June 6 for the construction of a bridge.

Bridges.—The county commissioners of Anne Arundel will open bids May 24 for the construction of a wooden bridge. Plans and specifications can be seen at office of board. Bids will be opened on same date for construction of iron bridge, 40-foot span and 16-foot roadway, on 24-inch caisson piling. Bidders are requested to furnish plans with bids. Sketch of bridge and stream can be seen at office of board. Bids will be opened on same date for construction of iron bridge, 100-foot span and 16-foot roadway, on 36-inch caisson piling. Plans requested with bids. Sketch of bridge and stream can be

seen. Address A. K. Starlings, clerk, Annapolis, Md.

**Distilling Machinery.**—James T. Tyndall, care of Geo. W. Lederer Co., Broadway and 30th street, New York city, is ready to receive information and estimates on cost of complete equipments for distilling corn whiskey if presented in writing only, not in person.

**Cotton Ginnery.**—Cedartown Cotton Manufacturing Co., of Cedartown, Ga., wants estimates on the construction of an 8 to 10 gln ginnery, with press complete. Address Chas. Adamson, president.

**Cotton Mill.**—C. H. Reynolds, care of Eastern Building and Loan Association, Syracuse, N. Y., wants equipment complete for 3000 spindle cotton mill for producing 10s and 12s yarns.

**Crushers.**—Wanted. A second-hand crushing plant, in good condition, of 200 tons granite capacity daily. Address Lock Box 62, Columbia, S. C.

**Electric Lighting.**—Proposals will be opened June 1 for lighting the streets of the city of Columbia, Tenn., for not less than one nor more than five years with forty to fifty are lamps of 1200 candle-power each; E. Voest, mayor.

**Electric-light Plant.**—Bids will be opened May 12 for furnishing electric-light plants at new city hospital and the new market-house. Plant to comprise engine and dynamo direct coupled capable of producing 375 10-candle-power 110 volts direct-current incandescent lights, including foundations for engine and dynamo, rheostat, voltmeter, ammeter, switchboard, main-line switch and wiring from main line to switchboard; also steam connections from present steam line to engine, etc.; also 400 110-volt 10-candle-power incandescent lamps, one engine and dynamo belted to engine flywheel, including belting, etc.; one boiler, engine and dynamo direct coupled capable of producing 100 100-volt 10-candle-power incandescent lights, including foundations, steam connections and all material, etc., and one boiler, engine and dynamo belted to flywheel of engine, including belt from engine to dynamo, etc., and for furnishing complete plant capable of producing 200 110-volt 10-candle-power incandescent lights. Address W. B. Armour, secretary fire commissioners, Memphis, Tenn.

**Engine.**—R. G. Scott, Jr., & Bros., Salt-creek, Va., are in the market for a five or six horse-power portable engine; second-hand would answer.

**Engine.**—White-Hall Co., Dillwyn, Va., is in the market for a second-hand portable threshing engine, mounted, of five to six horse-power.

**Engines.**—The Southern Export Lumber Co., Mobile, Ala., is in the market for portable engines and saw mills.

**Engineers and Architects' Supplies.**—Machinery, etc. Howe & Olney, Spartanburg, S. C., want catalogues and other printed data from dealers in and manufacturers of machinery, tools, etc., utilized in civil engineering and architecture.

**Flour Mills.**—V. E. Rutherford, Rita, Tenn., will want to buy flour-mill equipments.

**Furniture.**—Rev. Rolfe Hunt, Milner, Ga., will want to buy furniture for church.

**Heating Apparatus.**—T. R. Williams, Arvonia, Va., wants to buy a wood or coal furnace for church 32x45 feet.

**Hydraulic Machinery.**—Ogeechee Brick Co., Wm. Hart, manager, Union Point, Ga., is in the market for a hydraulic ram and 3000 feet of piping.

**Ice Wagons.**—E. H. Anderson, manager, Hopkinsville, Ky., wants to buy four ice wagons.

**Iron Works.**—Moncrief-Dowman Co., 38 Walton street, Atlanta, Ga., wants to correspond with iron works relative to contracting for manufacture of castings for ice-cream freezers, fluted and not fluted.

**Iron-working Machinery.**—V. E. Rutherford, Rita, Tenn., will want to buy iron-working machinery.

**Irrigation Machinery.**—Kilne O. Varn, Fort Meade, Fla., wants to buy a sprinkler for his irrigation system; wants sprinkler that will throw water forty to seventy-five feet in a stream or spray as fine as rain, and thinks a fan-shaped nozzle would probably answer.

**Metal Work.**—Sealed proposals will be received at the office of the lighthouse engineer, custom-house, Mobile, Ala., until 2 P. M., —, 1898, and then opened, for metal work for Southwest Pass Light Station, Louisiana, in accordance with specifications, copies of which, with blank proposals and other information, may be had

upon application to A. N. Damrell, lieutenant colonel, Corps of Engineers, U. S. Army.

**Metal-working Machinery.**—Atlanta Machine Works, Atlanta, Ga., wants a metal-sawing machine in good order, to take as high as fifteen inches.

**Pipe Line.**—Proposals will be received by the Charleston Natural Gas Co., Charleston, W. Va., until May 20 for hauling and stringing a pipe line twenty-eight miles in length, of the following dimensions: Ten miles of eight inch, thirteen miles of six-inch and five miles of four-inch. Proposals are asked for the hauling from boat or cars and the stringing of the pipe along the route as surveyed and staked. The bid to be based on 100 pounds per mile for the distance hauled, according to exact measurement of route, and based on pipe of standard weight. Hauling on same to begin within ten days after acceptance of bid, and continued at the rate of one-half mile per day if so desired. Or, a proposal will be received for the entire work of hauling and stringing on the above conditions. The company reserves right to reject bids. The nearest railroad stations are Spencer, Roane county, West Virginia; Charleston, W. Va., and points on the Charleston & Clendenin Railroad. For further information inquire of J. W. Penhale, superintendent Charleston Natural Gas Co., Charleston, W. Va.

**Piping.**—Ogeechee Brick Co., Wm. Hart, manager, Union Point, Ga., is in the market for 3000 feet of piping. (See "Hydraulic Machinery.")

**Railway Equipment.**—Wanted—Eighteen hundred tons 56-pound steel rails, with angle plates, to be delivered 600 tons each in July, August and September. Correspond with J. J. Hagedorn & Co., and Atkinson & Turner, West Point, Ga.

**Rice-mill Machinery.**—W. A. Deans's Sons, Goldsboro, N. C., wants to buy a machine for flaking rice.

**Roofing.**—E. L. Wilson Hardware Co., Beaumont, Texas, wants to correspond with makers of roofing, metal and other.

**Saw Mills.**—The Southern Export Lumber Co., Mobile, Ala., is in the market for portable engines and saw mills; second-hand.

**Saw-mill Machinery.**—F. Kell, Gumberry, N. C., may possibly need more saw-mill machinery.

**Saws.**—See "Metal-working Machinery."

**Steam Tenders.**—Mississippi River Commission, 2732 Pine street, St. Louis, Mo.—Sealed proposals in triplicate for furnishing five large steel-hulled steam tenders, complete with machinery and cabins, will be received here until 12 o'clock noon, standard time, May 27, and then publicly opened. Information furnished on application. H. E. Waterman, captain engineers, secretary.

**Stoves, Roofing and Ceiling.**—Osborne & Chikscates, Anderson, S. C., want to correspond with manufacturers of steel ceilings and metal-tile roofing, etc.

**Tanks.**—J. E. Wilkin, Pickinsville, Ala., wants addresses of makers of zinc and copper tanks.

**Tanks.**—Old Abe Co., White Oaks, N. M., wants to purchase twelve wooden tanks ranging in size from ten feet in diameter by five feet depth to twenty-four feet diameter by three feet depth; tanks to be used in cyanide-milling plant, and must be thoroughly well made, substantial and heavily hooped with extra-heavy iron. Address Frank J. Sager, secretary.

**Tobacco Machinery.**—Central Curing & Packing Co., Tampa, Fla., writes it is in need of no machinery at present, but may want some later.

**Water Works.**—Carrollton, Miss., wants to contract for the drilling of an artesian well; W. H. Hafner, mayor.

**Water Works.**—The city of Marianna, Fla., wants to contract for the construction of water works. Address George Farley, member of council.

**Well Drilling.**—See "Water Works."

**Woodenware Factories.**—Moncrief-Dowman Co., 38 Walton street, Atlanta, Ga., wants to correspond with makers of wooden pails suitable for ice-cream freezers.

**Woodworking Machinery.**—V. E. Rutherford, Rita, Tenn., will want to buy wood-working machinery.

**Ice Machinery.**—The Chautauqua Eureka Ice Co., of Pittsburgh, Pa., has a large force of men at work clearing up the remains from its recent fire preparatory to getting the plant in shape for operation. This work will be pushed forward as rapidly as possible, and it is hoped to have the plant in running before the close of the season. The repairs on this plant are being furnished by the York Manufacturing Co., of York, Pa.

## FINANCIAL NEWS.

The Manufacturers' Record invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

### New Corporations.

A bank with \$15,000 capital has been organized at Lafayette, Ky., with the following officers: Thomas H. Elliott, president; R. J. Carothers, vice-president, and H. M. Massie, cashier.

Messrs. Koontz Bros., of Allegheny City, Pa., it is reported, will open a bank at Ocala, Fla. They have purchased the building formerly occupied by the First National Bank in that town.

The Germania Fire Insurance Co. has been chartered to do business at Charleston, W. Va., with \$200,000. William S. Brown and J. J. Morgan, of Charleston, are among the incorporators.

J. N. Hallock, of Brooklyn, N. Y., and Thomas H. Franklin, of San Antonio, Texas, are interested in the Washington Heights Improvement & Land Co., which will do a general building and loan business at San Antonio with \$75,000 capital.

The People's National Bank of Denton, Md., has organized by electing Joseph H. Bernard, of Greensboro, president, and Fred R. Owens, of Denton, vice-president. George L. Wallace, of Baltimore, has been elected cashier. It is understood that the bank will be open for business about June 1.

### New Securities.

The Citizens' Bank of Cole Camp, Mo., has increased its capital from \$11,000 to \$25,000.

The election in Atlanta, Ga., to decide the issue of \$200,000 in bonds has been postponed until October 5.

The Merchants & Farmers' Bank of Norfolk, Va., has bought an issue of \$20,000 in bonds from the city, the price paid being 104.011.

Bids will be received until May 18 for \$5000 worth of 5 per cent. bonds by the city of Cambridge, Md. The town clerk will give further information.

The town of Summit, Miss., has determined to sell its proposed issue of \$15,000 in 6 per cent. water works bonds on June 7. The town clerk may be addressed.

The city of Goldsboro, N. C., has voted in favor of issuing \$30,000 worth of improvement bonds to bear 5 per cent. interest. The mayor may be addressed for particulars.

The stockholders of the Mercantile Trust & Deposit Co. of Baltimore have endorsed the plan of the directors to increase its capital from \$1,000,000 to \$2,000,000. As already stated in the Manufacturers' Record, this step was considered necessary in order to meet the demands of the company's increasing business.

### Dividends and Interest.

The Old Town Fire Insurance Co. of Baltimore has declared a semi-annual dividend of 3 per cent.

The Alexandria Compress Co., of Alexandria, La., has declared an annual dividend of 10 per cent.

The Twin City Building Association, of Norfolk, Va., has declared a semi-annual dividend of 4 per cent.

The Florence Loan & Investment Co., of Florence, S. C., has declared an annual dividend of 8 per cent.

The Farmers and Merchants' Bank of Newberne, N. C., has declared a semi-annual dividend amounting to \$2250.

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## ROYAL BLUE TRAINS

Between Washington, Baltimore, Philadelphia and New York.

In September last railway officials from London were sent to America to get ideas on the railway passenger service of the leading lines in this country, and in their official report, which was printed in the London Times in January, it was stated that the "Royal Blue Line" series of magnificent passenger trains running between New York, Philadelphia, Baltimore and Washington lead the world for quick and exquisite train service.

The "Royal Blue Line" service consists of nine elegant passenger trains a day in each direction between the cities named above. They are the finest and fastest trains in the world. Their equipment was built especially for the service by the Pullman Company, and includes every modern convenience known for the comfort of passengers. The trains are vestibuled from end to end, and hauled by the strongest and fastest locomotives in the United States.

The exquisite day coaches of these trains are worthy of special note. They are beautifully upholstered, each containing a washroom and smoking compartment.

The parlor cars are the most palatial ever built, being fully seventy-three feet long. In addition to this service, three new parlor cars were added in April, and are the first of this kind ever run; they are richly upholstered and ornamented throughout in most beautiful designs. A ladies' retiring-room is provided in one end of the car. This room, which is six feet square, is furnished with a beautiful dresser with large mirror and a number of drawers. On each side of it are upholstered corner seats. In another corner is a bookcase and stationary washstand. The room was designed for the especial comfort of ladies, who have al-



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ways claimed men had the best of it when traveling. The usual smoking apartment, however, is at the opposite end of the car.

The dining cars are operated by the Baltimore & Ohio Railroad Co., and especial attention is given to the menu. Every delicacy is served in season, and the service is unsurpassed.

In addition to the already perfect service of the "Royal Blue Trains" mentioned above, there will be put into service May 15 a "Royal Limited" train, which will leave New York at 1 P. M., making the run to Washington in FIVE HOURS. Returning, the "Royal Limited" will leave Washington at 3 P. M., arriving New York at 8.10 P. M. The "Royal Blue Line" will then boast of three trains which make this extraordinary fast time between Washington and New York, which has never been attained by any other line.

The "Royal Blue Trains" between Baltimore and Washington make the run in

**FORTY-FIVE MINUTES**—the fastest regular service ever attained between the two cities.

The terminal at New York city is the most convenient for all points in Greater New York. Passengers can land at South Ferry (Whitehall Terminal), where, under the same roof, connection is made with the Elevated Lines of the Second, Third, Sixth and Ninth Avenues, and the Broadway, Lexington and Columbus Avenue Cables. All the Brooklyn ferries also start from this point, and by taking the "Royal Blue Line" to Whitehall Terminal the passenger can reach almost any point in New York city or Brooklyn for a five-cent fare.

**TO CONTRACTORS.**

If you have any municipal bonds or warrants, taken in payment for building waterworks, court or school houses, jails, etc., write us. Conditions being favorable, we can use them.

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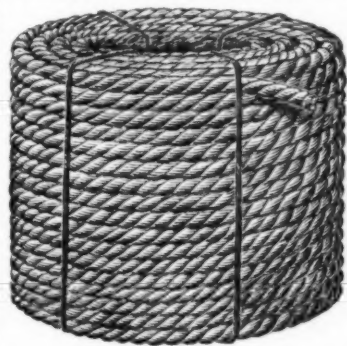
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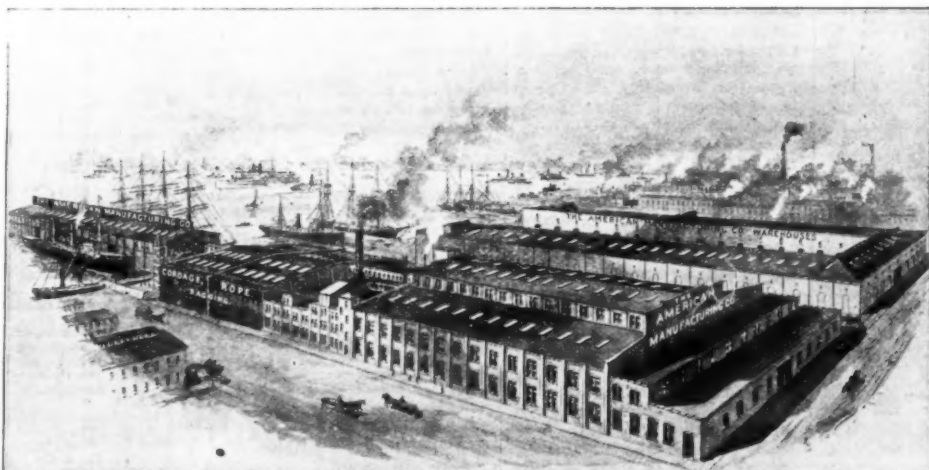
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## PROPOSALS.

SEALED PROPOSALS will be received by the City Clerk up to 7 o'clock P. M., June 7, 1898, for furnishing 50 arc lights of 2000 candle-power each, to be used in lighting the streets of the city of Greenville, Mississippi, and for such incandescent lights as may be required, under a franchise to be granted by the City Council. J. M. LEE, City Clerk, Greenville, Miss.

## Sealed Bids

For \$25,000 of Five Per Cent. Gold Bonds of the City of Albany, Ga.

ALBANY, GA., April 19, 1898.  
Sealed bids addressed to the undersigned will be received at the Clerk's office of the city of Albany until noon of the 16th day of May, 1898, for the whole or any part of an issue of \$25,000 in bonds of the city of Albany, of the denomination of \$500, drawing 5 per cent. interest, payable semi-annually, due 25 years from the date thereof, and payable, principal and interest, in gold coin of the present United States standard of weight and fineness at the Mercantile National Bank in the city of New York, State of New York. No bid considered unless accompanied by a certified check for \$500 to insure bona fides, and the right is expressly reserved to reject any and all bids.

[Signed] JNO. R. WHITEHEAD, Chm.  
H. A. TAYLOR,  
N. F. TIFT,  
Finance Committee.

## HELP WANTED.

Advertisements under this head will be inserted hereafter at the rate of one cent a word for each insertion.

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WANTED.—Capable, reliable, enterprising business man to take entire control of novel device for advertising. Small capital required to push device, not to buy it. Address ADVERTISER, care Manufacturers' Record.

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Advertisements under this head will be inserted hereafter at the rate of one cent a word for each insertion.

AGENCY—EXPORT.—Gentleman having ten years experience in export commission trade, conversant with Spanish, French, German and foreign market requirements, would represent manufacturers to foreign trade, or take charge of export department for a firm; is competent to act as resident buyer. Address "DONALD," Box 21, 1401 Third Avenue, New York.

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An ideal city for a HOME. Full of historic interest. Cost of living is cheap and climate delightful. Educational facilities are unsurpassed.

Garden produce of farms near Charleston is shipped to Northern and Eastern markets at good profits.

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Mfd. by J. C. STEELE & SONS, Statesville, N. C.  
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## The Hartzell Self-Draining Reel

is different from others, as it is superior, as it is most convenient, it drains all the water out of the Hose after it has been reeled. No obstructions outside of this reel, to interfere with the free winding or unwinding of the Hose.

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It is well mechanically made.

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Large new shops erected this year for Mechanic Arts, Steam, Electrical and Hydraulic Engineering.

Climate healthful and mild. Faculty of twenty-one. The place to educate the South's future industrial workers.

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Business men desiring to open offices in Baltimore will find in the

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superior advantages in location, comfort and convenience.

The building is modern in every respect; furnished throughout in quartered oak; steam heat, electric and gas lights, quick elevator service, mail chute, etc.

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Considering the location, conveniences and services, these are the cheapest offices in Baltimore.

Light, heat and janitor service free. Inspection invited.

MANUFACTURERS' RECORD PUB. CO.,  
BALTIMORE, MD.

## Woodworking Machines

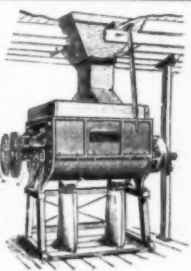
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American Woodworking Machinery Co.

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The BROUGHTON  
Hard Plaster, Cement, Paint, &c.  
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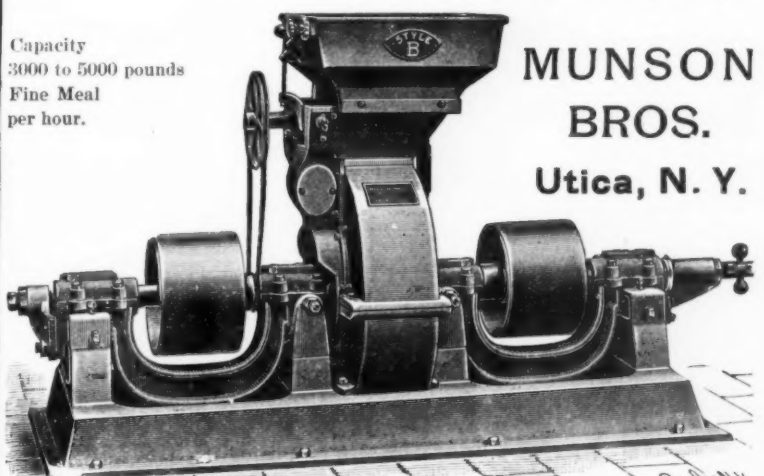
## The Robinson Patent Grinding Mill

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Gentlemen—Enclosed find check to balance account. In regard to the Robinson Mill, it is all you claim for it, and for grinding corn cob cannot be excelled.

In all of our twenty-five years' experience in the feed business we have never seen a mill that will compare with the Robinson for all kinds of grinding. Yours truly,  
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Are used by the leading mills because they are the Best. Investigation will convince you of their superiority. Catalog and Discounts on application.

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Flour Mill Builders & Contractors.



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Established 1847.

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COURTHOUSE AND JAIL WORK.  
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Gentlemen—\*\*\* I have advised a number of counties, towns and cities for which I have prepared plans for public buildings to advertise for bids through your paper, knowing that the results in securing competition pay well for the small cost to any county or municipality. I find that more contractors read your journal than any other paper in the Southern States. Making a specialty of public buildings for seventeen years, I can appreciate the results in securing low prices by notifying material men through such advertising as to what is wanted. I think this county secured a \$60,000 fire-proof building for \$50,000 by having large competition only.

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**YELLOW PINE LANDS A SPECIALTY.**

Apply to or address **JOHNSTON & NELSON**, 241 E. German Street, BALTIMORE, MD.

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in large or small units for manufacturing purposes. Columbia is in the centre of the cotton producing country. Low freight rates to all points. An ideal manufacturing location.

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Parties desiring to start new enterprises or change location, are invited to investigate Radford, Va. Good climate, water and drainage, elevation, 1800 feet. On Norfolk & Western Ry. at junction of Columbus, O., and Pocahontas Coal Fields divisions, as well as Southern connection via Knoxville, Tenn. In midst of fine agricultural country and 25 miles from ore fields. Population, 4000, churches, public and private schools, electric light and car line. Ice plant and other manufactures.

Responsible parties are offered inducements, including no city taxes for five years. Address

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Secretary Board of Trade,  
**RADFORD, VA.**

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The Place for Factories.

Central location between extreme North and South. Climate perfect. City very healthy. Surrounded by the most productive cotton and rice plantations and truck farms. One lives cheaply in Wilmington and consequently labor is cheap also. Our city is the best situated on the South Atlantic Coast for factories of all descriptions, it has the lowest freight rates in the entire timber and cotton belt. Our cotton mill runs day and night, and new factories are exempt from taxation for ten years.

For further information write to the  
**SECRETARY of Chamber of Commerce.**

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FOR SALE.

Apply New York Office, 18 Walker Street,  
or at Mills, Paterson, N. J.

### Plant of 40,000 Spindles Being Sold.

Carding, Spinning, Warping and Weaving Machinery. All in excellent condition.

Prices Low. Send for Complete List.

ALSO

**Bleaching, Dyeing and  
Finishing Machinery.**

**Robt. Franklin Adams.**

**DESIRE** to rent or interest party with capital in a Corn Mill Plant and Quarry in North Carolina. Have been favorably known and largely advertised for many years. Address, **MISS BESSIE E. POUND**, 447 W. 5th St., Plainfield, N. J.

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### Horse Power for Sale or Lease.

Manufacturers who are contemplating removing their plant or establishing a branch factory are invited to investigate the superior advantages possessed by the

### Roanoke Navigation & Water Power Co.

The third largest power in the United States, situated at **WELDON, N. C.**, at the junction of the Seaboard Air Line and Atlantic Coast Line.

**2000 HORSE POWER NOW READY** for immediate use and capable of development to almost any extent, situated at the head of navigation of Roanoke River and junction of Atlantic Coast Line and Seaboard Air Line, INSURING FIRST-CLASS SHIPPING FACILITIES TO ALL PORTS AND LOW FREIGHT RATES. Absolutely free from interference by high water. Good manufacturing sites for various industries are available. **2,000,000** brick on hand and a yard sufficiently large to supply any demand. Weldon is in the centre of the RICHEST COTTON LAND IN THE SOUTH. **200,000** BALES COTTON BEING PRODUCED ANNUALLY.

This section is **RICH** in **TIMBER** and **WOOD** for manufacturing purposes, as well as for making acetate of lime of potash. Boats using 3½ feet water can go up the river from our power site for 30 miles, developing a valuable timber country that has not been penetrated.

**FOR THE ESTABLISHMENT OF AN ICE FACTORY** no better location can be found, having a territory of a radius of 50 miles, containing a population of 400,000.

**LABOR** is **INTELLIGENT**, **ABUNDANT** and **CHEAP**. **ALL DESIRABLE** and **NEEDED ADVANTAGES.**

Our power can be bought or leased at reasonable rates. Will take pleasure in answering all requests for detailed information. Address

### Roanoke Navigation & Water Power Co.

**JAS. W. WILSON**, Pres. & Gen. Mgr.

**WELDON, N. C.**

### Special Commissioner's Sale,

WEDNESDAY, MAY 18, 1898,

OF THE

### Newport Cotton Mill, NEWPORT, TENN.

The following describes the property: The building is a heavy brick structure, 40x200, four stories high; the dye house 40x60, and engine and boiler buildings are of frame, covered, roof and sides, with iron. The engine is a Frick & Co. Corliss of 120 H. P.; 2 Erie City boilers, 80 H. P. each. The looms are of the Bridesburg & Knowles pattern, 192 in number, with quillers and beams sufficient for service. The dye house is equipped with dyeing and drying machines sufficient for 500 or more looms. The building will accommodate 100 more looms. Buildings and machinery will be sold separately and together. Newport is the county seat of Cocke County, Tennessee, situated in a beautiful, fertile and healthy section. Labor abundant and cheap. Living as cheap as anywhere in the entire South. The mill is situated on the main line of the Southern Railway running direct to Washington. Any further information will be cheerfully given by

**JOHN W. FISHER,**

Special Commissioner, Newport, Tennessee.

### Charcoal Iron.

Capital wanted to develop large iron property in Texas. An abundance of timber for charcoal. Transportation facilities excellent. For full particulars address

**OWNERS,**  
Care Manufacturers' Record.

**AGENTS WANTED—To Sell the**

### "Battle Ax" Hay Press.

Latest invention, Automatic, Ball Bearing, Compound Leverage, Self Contained. No gear wheels or springs. Full circle, Simple in construction, efficient in service. Write, prices, discounts.

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**NEW DECATUR, ALA.**

### NOTICE.

We mine, manufacture, buy and sell all kinds of mineral paints, dry colors, minerals and clays. **ALPHA PAINT AND MINERAL CO.**, 338 Bourse Building, Philadelphia, Pa.

### FORECLOSURE SALE

OF THE

### Property and Franchise of the Catawba Mills of Chester, South Carolina.

Under and by virtue of the decree of the Circuit Court of the United States, for the District of South Carolina, filed the thirtieth day of April, A. D. 1898, in the case of The D. A. Tompkins Company vs. the Catawba Mills and others, I, Julius H. Heyward, Standing Master of said court, will sell at public auction, upon the premises of said defendant corporation, near the City of Chester, in the County of Chester and State of South Carolina, on the tenth day of June, 1898, at 12 o'clock M., all that piece or parcel of land containing about four acres, situated on the Saluda Road, one mile north of Chester, C. H., in said State, wherein is located this Cotton Mill of the Mortgagor (the Catawba Mills); also that other piece or parcel of land containing ten acres situated off the eastern side of said road, wherein is located the operative houses of the Mortgagor (the Catawba Mills); also all the machinery and manufacturing plant contained in the first named building, consisting of engines, boilers, spindles, cars, shafting, belts and machinery of every class and description now there for manufacturing purposes; also all the other personal property of the said Company; also its franchise or charter rights secured from the said State. Together with all and singular the right, tenements, hereditaments and appurtenances to the said premises belonging or in any wise incident thereto. And also that certain lot adjoining above described property, upon which the superintendent's house is located. It being all the property involved in this litigation.

**TERMS.**—One-half cash, to be paid at the time of confirmation of sale; balance to be paid twelve months after date of confirmation, with interest on the credit portion at the rate of 6 per cent. per annum, secured by purchasers' bond and mortgage upon the premises, together with policy of insurance for not less than \$25,000. The purchaser to have privilege of paying the entire bid in cash, or at any time within twelve months. Purchaser to pay the Master for paper.

The upset price to be bid for said property at the time of said sale shall be \$45,000, and the Master making the sale will receive no bid unless there shall be deposited with him in cash or certified check \$6,000 at the time of the sale, which amount shall be returned to the bidder if the sale be not confirmed; and if the sale be confirmed the said amount shall go as a part of the purchase money.

**JULIUS H. HEYWARD,**  
Standing Master.

### NOTICE.

By virtue of the order and decree of the Circuit Court of the United States, for the district of South Carolina, in the case of Alfred S. Malcolmson vs. the Wappoo Mills et al, filed in said court on 24th February, 1898, I will sell at PUBLIC AUCTION on the

Ninth day of June, 1898,

at the Court House of Charleston County, in the City of Charleston, S. C., at eleven o'clock in the forenoon, the

### Franchises and Property of the said Wappoo Mills,

Constituting a Fertilizer Manufacturing Establishment situated near the City of Charleston, together with the property connected therewith. For a particular description of the property, and for the terms and conditions of sale, reference is made to said decree and the advertisement of said sale published in the News and Courier, published in the City of Charleston. Further particulars as to said sale can be had by application to the undersigned, addressed at Charleston, S. C.

**WM. E. HUGER**, Receiver.

### FOR SALE.

18 Platt Bros. Revolving Flat Cars, 40 in. wide; 67 flats; equal to new.  
3 Platt Bros. Roller Cars, 40 in. wide.  
1 Platt Bros. Spreader.  
6 Dronsfield's Grinders.

All above can be seen by applying to  
**EDWARD JEFFERSON & BRO.**  
28 Strawberry Street, PHILADELPHIA, PA.

**WANTED**—Party desiring to rent a saw-mill plant, drying kilns, planer, steampower, etc., in North Carolina, two railroads on property. Address: **THE CENTRAL CHEMICAL CO.**, 36 East 14th St., New York, N. Y.

### FOR SALE.

A 4-wheel saddle tank standard gauge 30 ton Engine, in first-class order. For particulars and price address **F. M. BLACK**, 1119 W. 8th Street, Wilmington, Delaware.

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TOOLS,

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MILL SUPPLIES,

Anything used by a manufacturer, builder,

miner or contractor, notify the

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Baltimore, Md., and your wants will be placed before hundreds of manufacturers who will send you their catalogue and prices. It costs you nothing.



## Sale by Special Master.

By R. M. MARSHALL & BRO., Auctioneers.

The United States of America, District of South Carolina, in the Circuit Court, fourth circuit. W. B. Strang, Jr., & Company vs. Greenwood, Anderson and Western Railway et al. Intervention of Georgia Railroad Bank.

Under and by virtue of a decree of the Hon. Charles H. Simonton, United States Circuit Judge, bearing date the 4th day of April, 1898, I, the undersigned, G. H. Sass, Special Master, will sell at public outcry to the highest bidder, at the Batesburg Cotton Mill, at Batesburg, South Carolina, at the hour of 3 o'clock P. M., on Wednesday, the first day of June, A. D. 1898:

All that lot, piece or parcel of land situate, lying and being within the corporate limits of the town of Batesburg, in Lexington County, State of South Carolina, containing sixty-eight acres, more or less, and bounded by lands of Mary and Hattie Mitchell, L. Hartlidge estate, David Rawl, T. S. Fox, and others, on which is erected a three-story brick cotton mill building, about sixteen cottages and other buildings, together with all machinery. The improvements on the land consist of a cotton factory operating 100 looms and a corresponding number of spindles, and containing picking machinery, cards, railway heads, drawing frames, cloth room machinery, Lowell filling frames, one slasher, belting, shifting, two good boilers, one Corliss engine and a new electric-light plant, according to the following schedule: Two (2) boilers, 100 H. P. each; one (1) Corliss engine, 150 H. P.; picker room machinery, Kitson's; 100 looms, Whiting; one (1) folder, Lowell Machine Co.; one (1) brusher, Lowell Machine Co.; one (1) gauge calendar; one (1) cloth press; one (1) electric-light dynamo; twenty-seven (27) Mason cards; four (4) Jenk's draw heads; one (1) Higgin's slubber; two (2) Higgin's speeders; three thousand five hundred (3,500) spindles, Lowell Machine Co.; two (2) spool frames; one (1) slasher; two (2) warpers; shafting, pulleys, belting.

TERMS.—One-third Cash, and the balance in two equal successive annual installments; the credit part to bear interest from the day of sale, payable annually, and to be secured by bond of the purchaser and a mortgage of the premises sold; buildings to be insured and policy assigned to protect the mortgage. Purchaser to pay the Special Master twenty-five dollars for papers, and to pay all taxes payable after the day of sale, and to have the option of paying all cash.

G. H. SASS,  
Special Master.

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## Mineral, Farming AND Timber LANDS.

Can Supply following:

Asbestos Lands.	Antimony.
Baryta.	Black Cypress Poles.
Beauxite Lands.	Cement Gravel.
Chrome Iron.	Cerundum Lands.
Coal Lands.	Cotton Lands.
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Nickel Lands.	Orange Groves.
Oyster Lands.	Onyx.
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Phosphates, Florida.	Pine Lands.
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**26,000 ACRES OF LAND,**  
From 4 to 16 miles from Summerville, S. C. A noted health resort, containing long and short leaf pine, oak, hickory, ash, cypress, etc. Contains excellent farming and pasture land, and is convertible into a game preserve. Also second-hand machinery in good order.

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About 29 Miles Railroad,  
IN  
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Standard gauge 60-lb steel rails barely used, with all ties and other materials, franchises, etc., belonging thereto. Suitable for a Texas or Mexican railroad development.

For full particulars address,

HYDE BROS & CO.  
Lewis Building,  
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who desire to change their location are invited to investigate the timber resources along the line of the Shreveport and Red River Valley Railway. Forests of yellow pine, ash, cotton-wood, cypress and gum can now be secured along the line of the road at low prices. Low rates guaranteed to all points. Address LOUISIANA CENTRAL CONSTRUCTION CO., Ltd. Shreveport, La.

## Patent Grate Bar Right FOR SALE.

New England and Western States for Sale.

Big income from royalty. One county in North Carolina pays \$1,500 per year. Wanted manufacturing agents in every State to work on royalty. One hundred per cent. profit to manufacturers. Salesmen on commission or on lease as agent for specified territory. Big profit to business men. Saves 20 per cent. fuel.  
P. Morrow, Yorkville, S. C.: "Works better than you claimed."  
Geo. A. Gray and R. C. G. Love, of Gastonia, N. C.: "Cost of grate same at first; one-fifth after of any other."

Particulars on application to  
EARL & WILSON, Gastonia, N. C.

## WANTED.

## Machinery to Manufacture

We have a thoroughly equipped Machine shop, Carpenter Shop and Foundry, and can do all classes of Machine Work very reasonable. Try us.

SOUTHERN FOUNDRY & MACHINE WORKS,  
FREDERICKSBURG, VA.

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## Up-to-date Wheel Factory

in one of the best Southern cities. 3 railroads. Capacity 150 sets of wheels per day. 10,000 finished spokes per day. Best of material right at door at cord-wood prices. Address

P. O. BOX L,  
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PARTY with suitable buildings, steam power, etc., wishes to associate experienced parties with capital in Cotton Factory, desirable location in North Carolina, on two railroads. Address BEECHWOOD CHEMICAL CO., 35 East 14th St., New York, N. Y.

## Bargains in Machinery FOR IMMEDIATE DELIVERY

## FLOUR MILL OUTFIT.

Complete Flour and Corn Mill outfit of 50 barrels daily capacity. Used only a short time and in very good order.

Offered at a sacrifice!

## Who wants it?

Rich bargains in all sorts of Machinery, Boilers, Railroad Equipment, &c.

THOS. P. CONARD,  
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FOR SALE.—1 80 H. P. Poole & Hunt Engine; 1 40 H. P. Nagle Engine; 1 65 H. P. Engine; 2 No. 5 Knowles Pumps; 1 No. 6 Knowles Air Pump and Receiver; 1 10" x 12" Porter Engine; 1 25 H. P. Erie City Iron Works Economic Boiler; 1 30 H. P. Return Tubular Boiler; 3 65 H. P. Return Tubular Boilers; 1 8 H. P. Upright Boiler, all thoroughly overhauled, also 1 Marine Boiler, new, to suit 17" Square Engine, and 300 ft. of 6" Cast Iron Pipe with flanges on ends and a Lot of Saw Mill machinery. Write for prices to  
JOHN F. RILEY'S MACHINE WORKS,  
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One Morgan Traveling Crane,  
Ten tons capacity, span 45 feet 6 inches.  
In first-class condition.

THE WESTINGHOUSE MACHINE CO  
PITTSBURGH, PA.

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ENGINES for Blast Furnaces, Foundries, Converters and Rolling Mills. MILL TRAINS (3-high), 36 in., 30 in., 20 in., 18 in., 12 in. and 6 in. SHEARS for Blooms, Billets, Plates, Sheets, Old Rails and Scrap. CRANES—Yale and Towne Pillar Crane (10-ton); Jib Cranes, Iron and Wooden. STEAM HAMMERS, various sizes and makes. SQUEEZERS (Rotary). FLY WHEELS and HAND WHEELS, various sizes. Punches, Straighteners, Roll Lathes, Riveter, Machine Shop Tools, etc., etc. LOCOMOTIVES, various gauges, sizes and styles.  
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Sales Agt. BALDWIN LOCOMOTIVE WORKS,  
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THE CORNMANN COMPANY,  
1136 Hamilton Street, CLEVELAND, OHIO.

## Cotton Mill Engine

FOR SALE.

One pair of Greene Engines made by the Providence Steam Engine Co., cylinders 16 in. x 36 in., speed, 92 revolutions, rated at 300 H. P., wheel 16 feet in diameter and 30 in. face. Deane independent condenser, all valves fittings, gauge board, etc., complete. Engine has been used about five years and is in the very best of condition.

Also one pair of 30 in. x 60 in. Geo. H. Corliss Engines, rated at 1000 H. P., speed 65 revolutions, wheel 28 ft. x 90 in. face, in good condition.

One Ball & Wood Cross Compound High Speed Engine, cylinders 16 in., 21 in. x 16 in., rated at 300 H. P., non-condensing, or 350 H. P. condensing, extra heavy type for electric railway work, has been used about two years and is in first-class shape.

The above engines we now have for immediate delivery, they having been replaced with larger ones. We are in a position to quote very low prices on the above. For full information address

T. C. PERKINS & CO.

Second-Hand Engines and Machinery,  
HARTFORD, CONN.

## FOR SALE CHEAP.

Electric Motors in Stock.

110 Volt—1/2, 3/4, 1, 2, 3, 4, 5, 7 1/2, 10, 15, 20, 25, 30, 35, 60, 75 horse-power.  
220 Volt—1/2, 3/4, 1, 1 1/2, 2, 3, 4, 5, 7 1/2, 10, 15, 20, 25, 50 horse-power.  
500 Volt—1, 2, 3, 4, 5, 7 1/2, 10, 15, 20, 30, 35, 50, 75 horse-power.

All are of standard makes, principally Edison, Thomson-Houston, Westinghouse, Crocker-Wheeler, C. & C. and Eddy.  
Send for our monthly Bargain Sheet, giving complete list, with prices; also on Dynamos, Arc Lamps, Instruments and Supplies.

CHAS. E. GREGORY COMPANY,  
58-60-62 S. Clinton St. CHICAGO.

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## Automatic Engines and Boilers

In great variety at low prices. These engines have been all rebuilt, are practically equal to new. Send for quotations. State just what you need.

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Lathes from 12" to 48", Planers from 20" up to 60", 48", 54" and 60" Radial Drills, No. 2 Newton Milling Machine, No. 2 Screw Machine, Shapers from 6" to 30", Boilermakers' Punches, Shears, Edge Planers, Rolls, Drills, Engines, Boilers, Pumps and Dynamos.  
FRANK TOOMEY, 131 N. THIRD ST., PHILA.

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## A FOUR-PRESS OIL MILL,

And in connection therewith a 17-ton Ice-Making Plant and a Cold-Storage Building, in Macon, Ga.

LOUIS BLOCK,  
Care The De La Vergne Refrig. Machine Co.  
NEW YORK, N. Y.

## SECOND-HAND ENGINES

FOR SALE CHEAP

## AMERICAN ENGINE CO.

Builders of the American Ball Engines and Electrical Machinery,  
BOUND BROOK, N. J.

**FOR SALE.**

A number of Second-hand  
**SPLIT SWITCHES**  
for 30 lb. rail, (3 ft. gauge of track),  
including 4 ft. or 6 ft. Frog, Ground  
Lever, Switch Points and Connecting  
Rods.

New and Relaying Steel Rails  
Bought and Sold.

**ROBINSON & ORR,**  
419 Wood St., PITTSBURGH, PA.

**FOR SALE**

8 3-ft. gauge Locomotives.  
1 Standard gauge Locomotive.  
2 1½-yard Steam Shovels.  
6 3-ft gauge 3 yard Dump Cars.  
25 new 3-ft. gauge 2½-yard Cars, for shovel or  
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5 side and centre Unloading Flows.  
1 Leveling Car with plow.  
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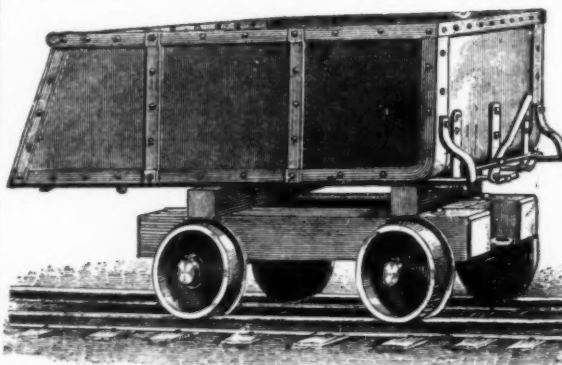
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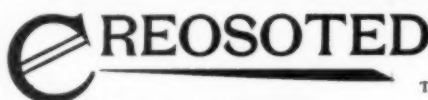
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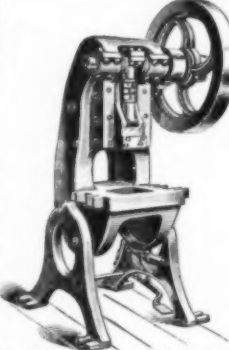
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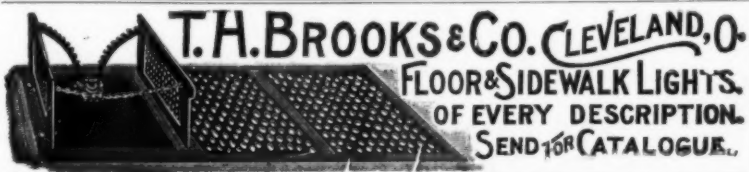
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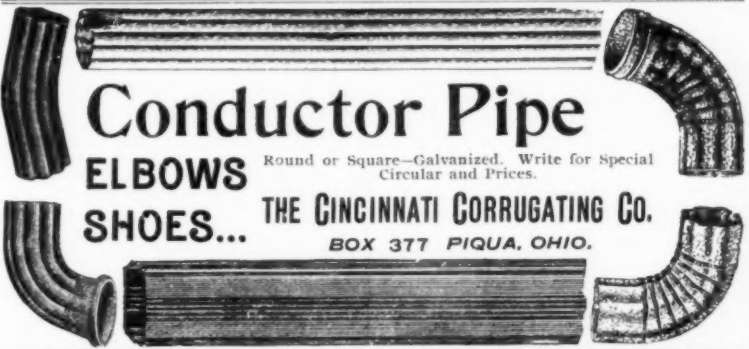
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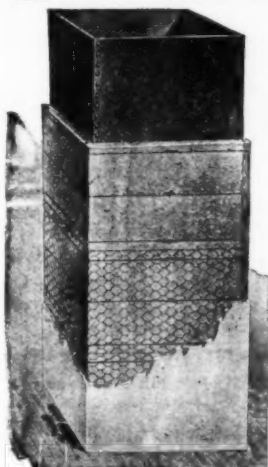
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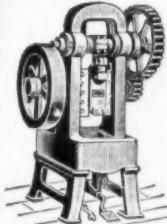
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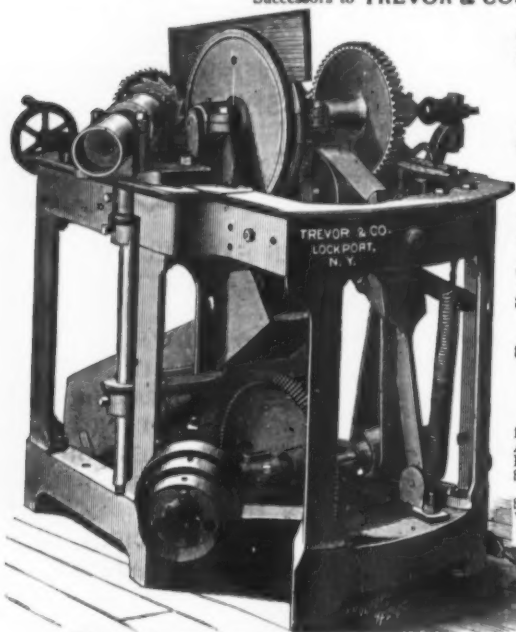
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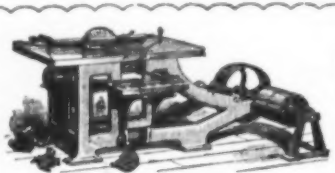
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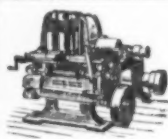


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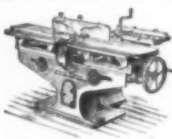
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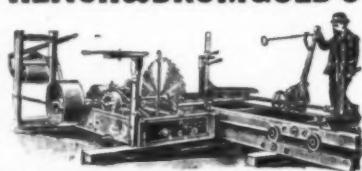
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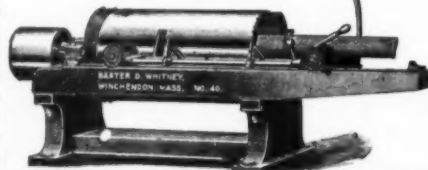
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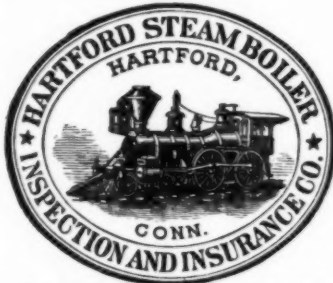
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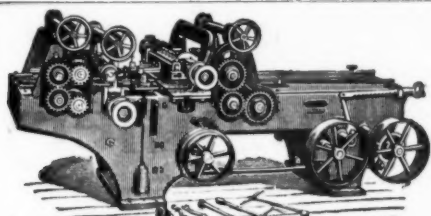
Full information concerning the plan of the Company's operations can be obtained at the  
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FRANCIS B. ALLEN, ad Vice-Prest. E. J. MURPHY, M. E., Consulting Engineer.

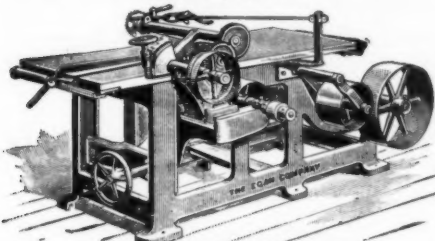
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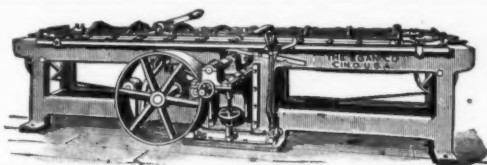




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Surfaces on two sides material up to 24 ins. wide, 6 ins. thick.  
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For material up to 12 ins. thick.



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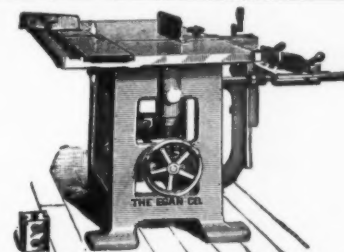
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For Planing Mills, Furniture Factories,  
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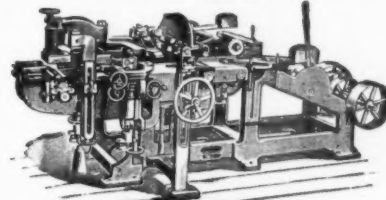
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Seven-inch Four-Sided Molder.  
Heaviest and best Molder of its width made.

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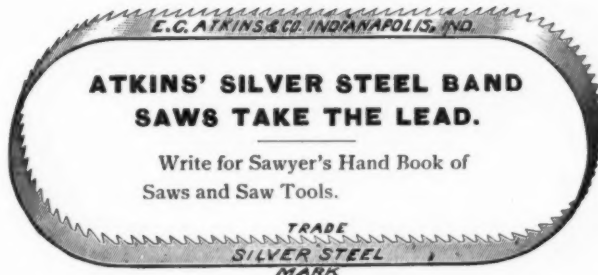
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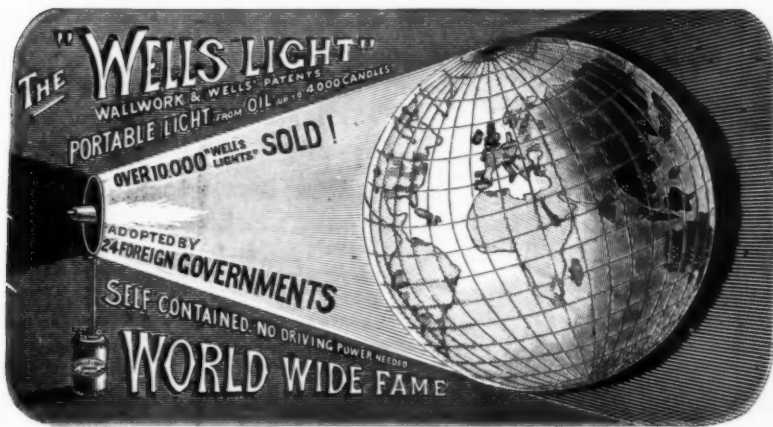
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The ADJUSTMENT is in the Track, not in the Hanger.

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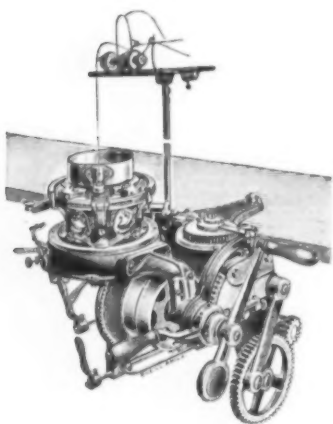
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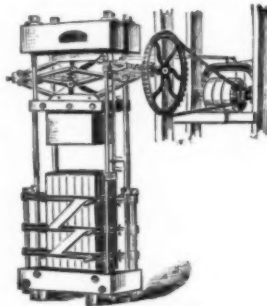
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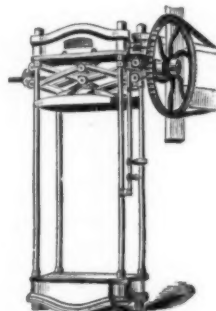
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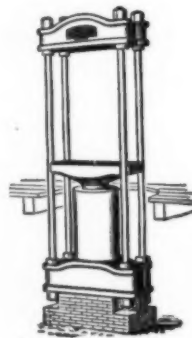
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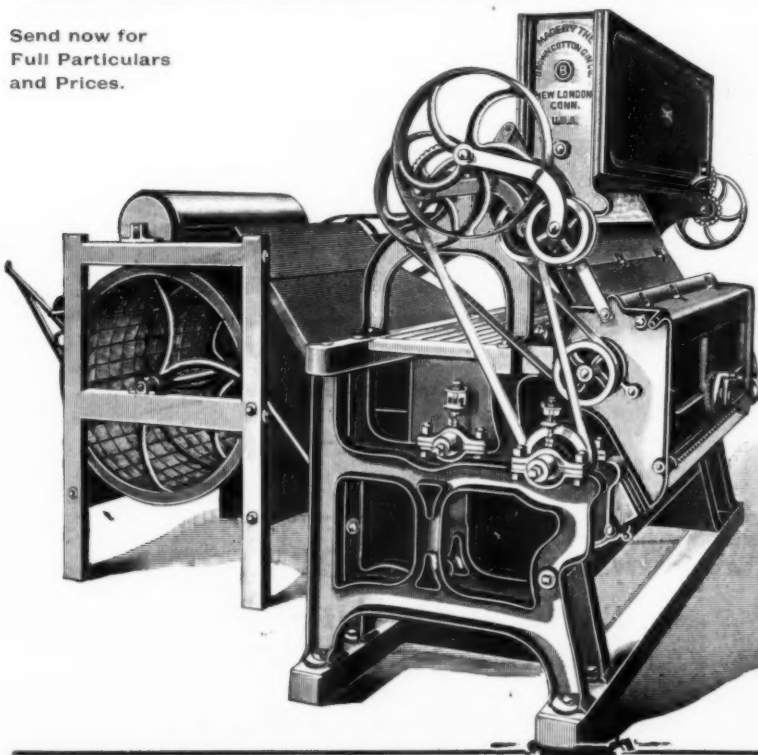
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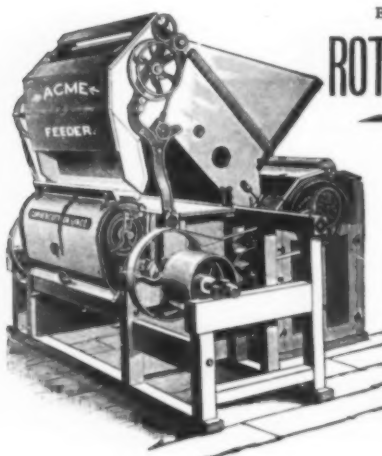
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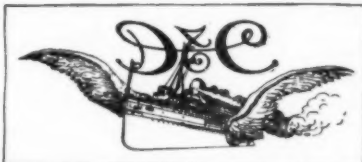
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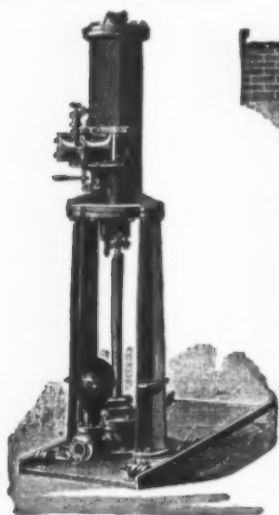
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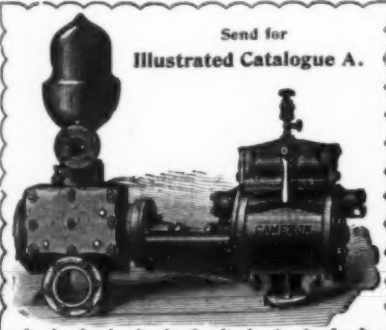
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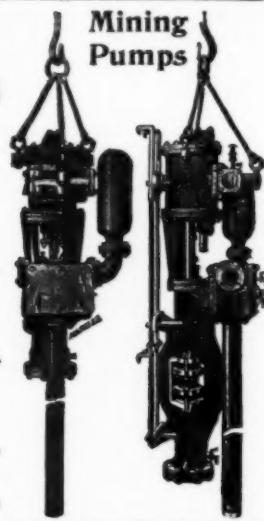
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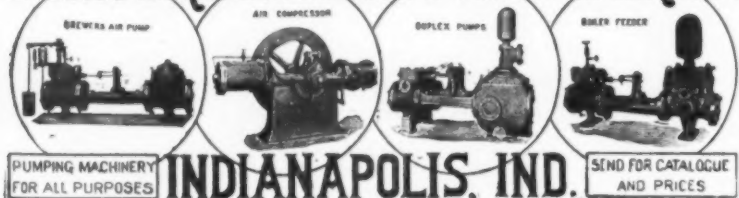
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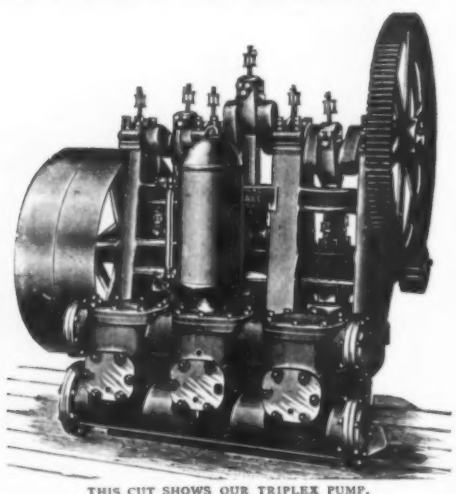
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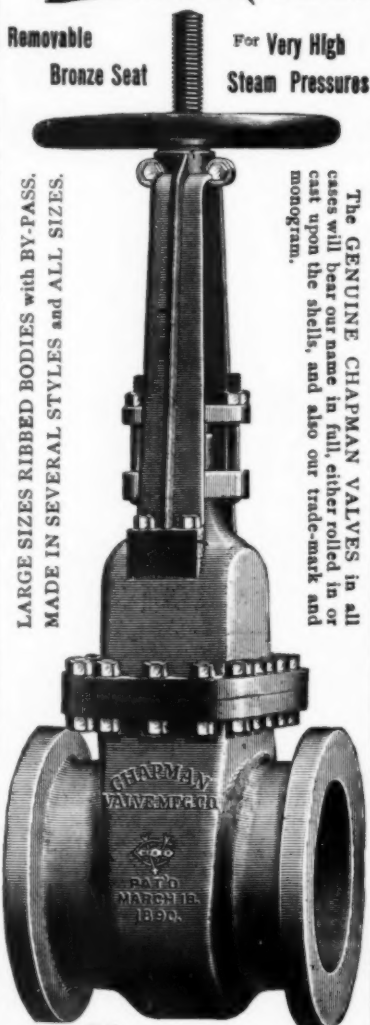
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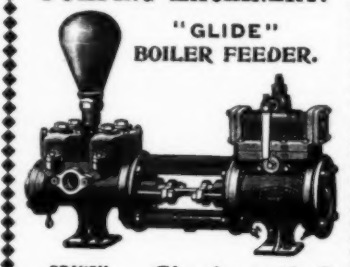
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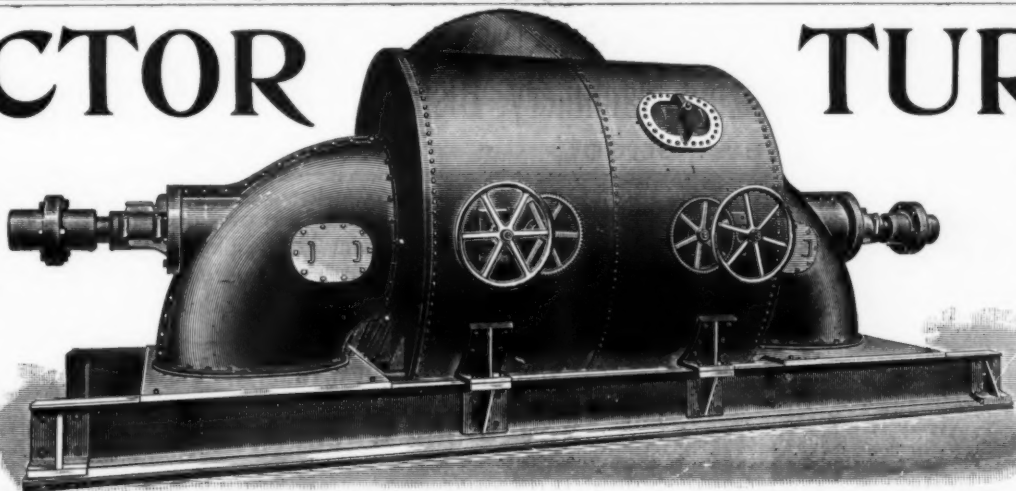
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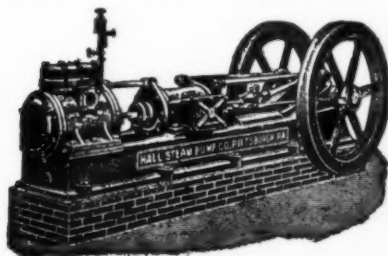
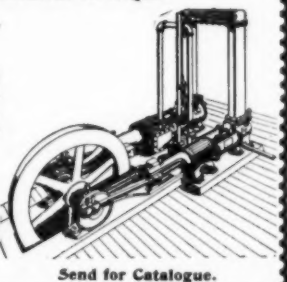
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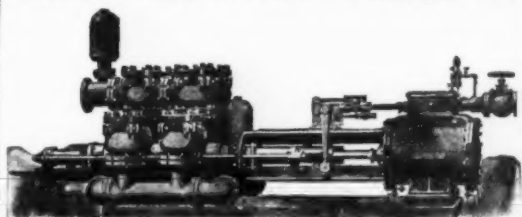
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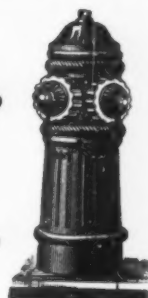
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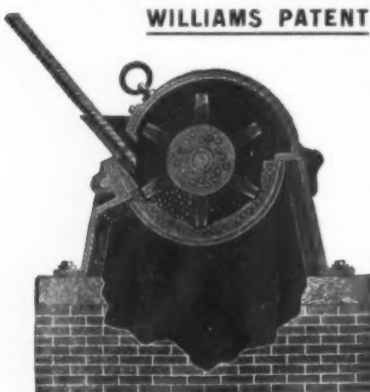
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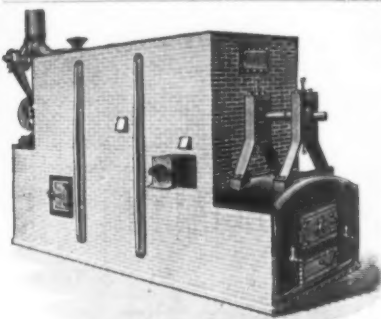
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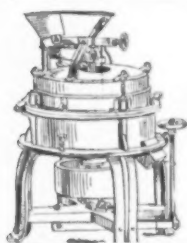
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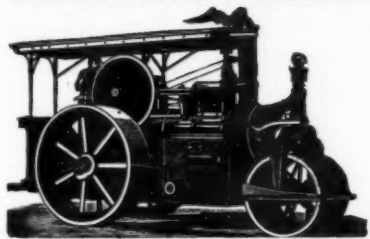
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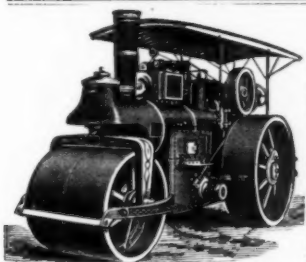
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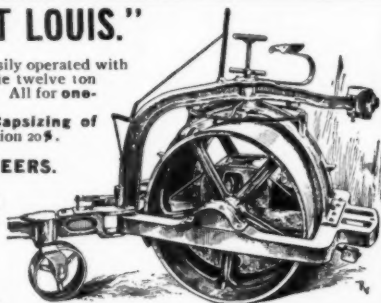
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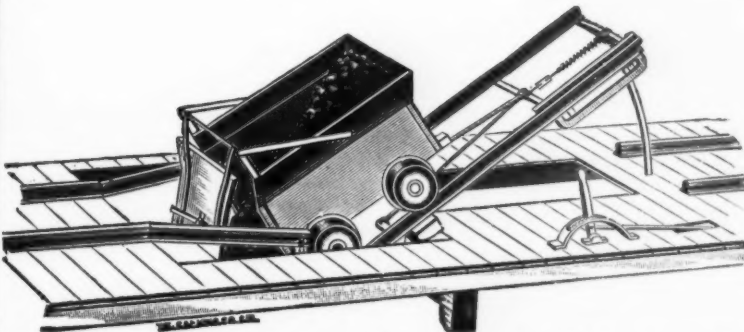
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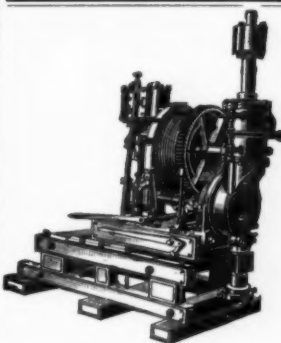
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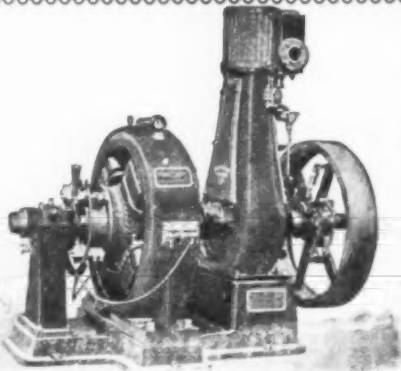
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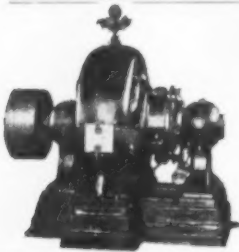


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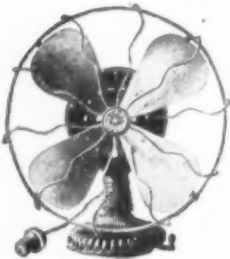
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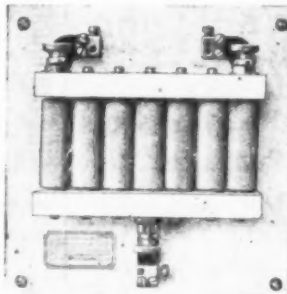
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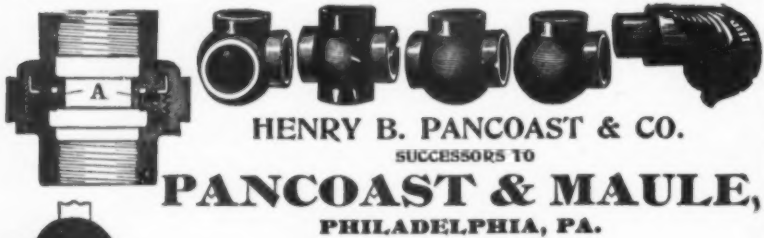
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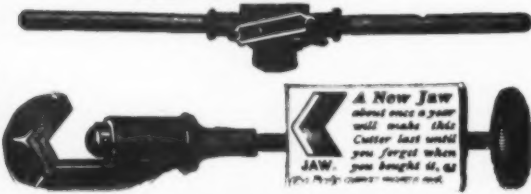
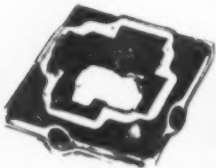
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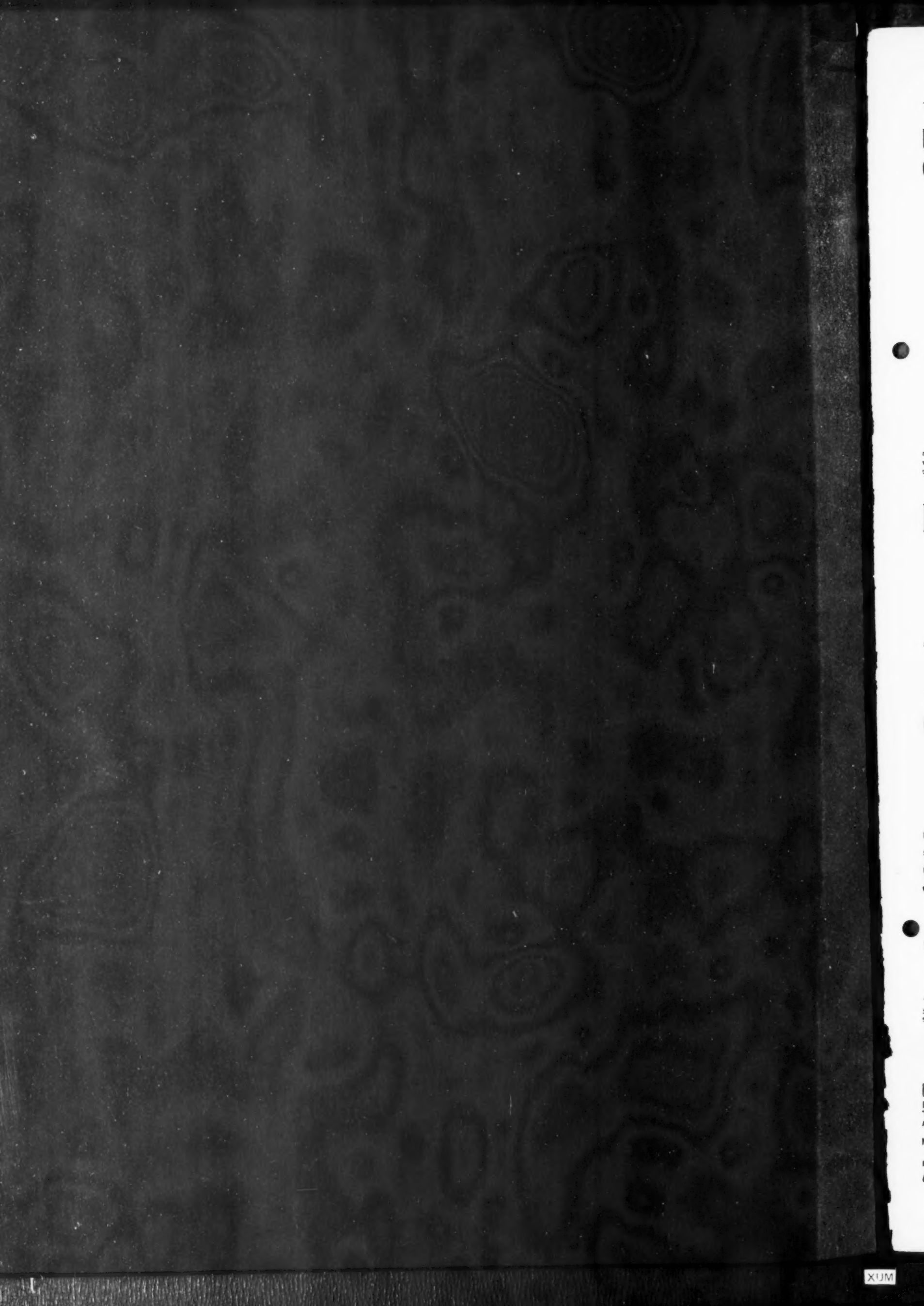
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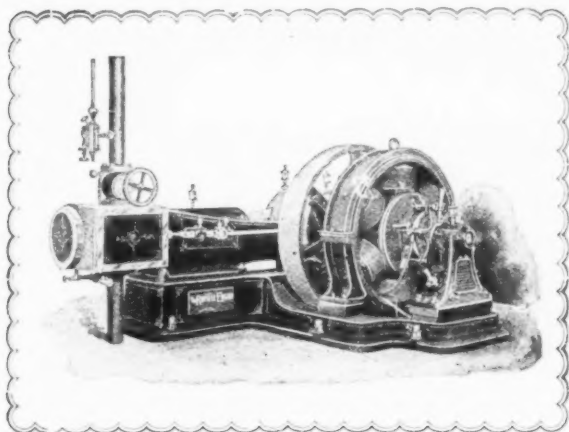






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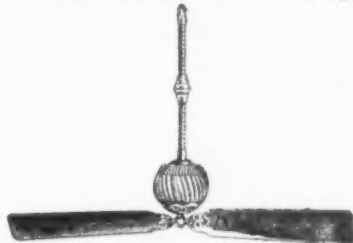
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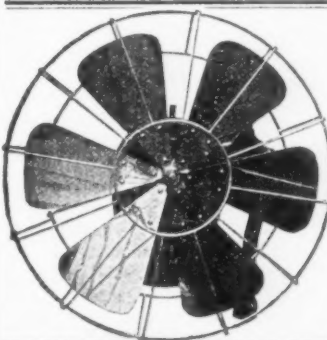
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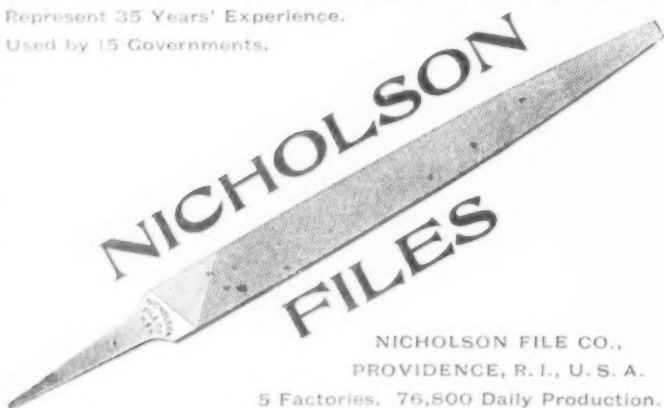
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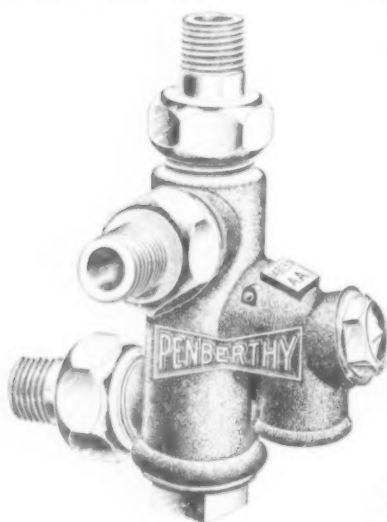
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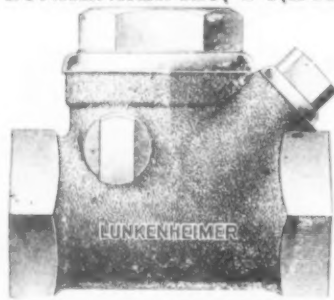
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